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# St. Louis Metro Area Rail Gateway Enterprise

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## DRAFT ENVIRONMENTAL IMPACT STATEMENT Technical Supplement UTILITY IMPACTS

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## TECHNICAL SUPPLEMENT

## UTILITY IMPACTS

St. Louis  
Metro Area Rail Gateway Enterprise

## Prepared for:

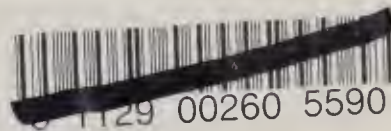
Federal Railroad Administration  
Illinois Department of Transportation  
St. Louis MARGE  
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June, 1981

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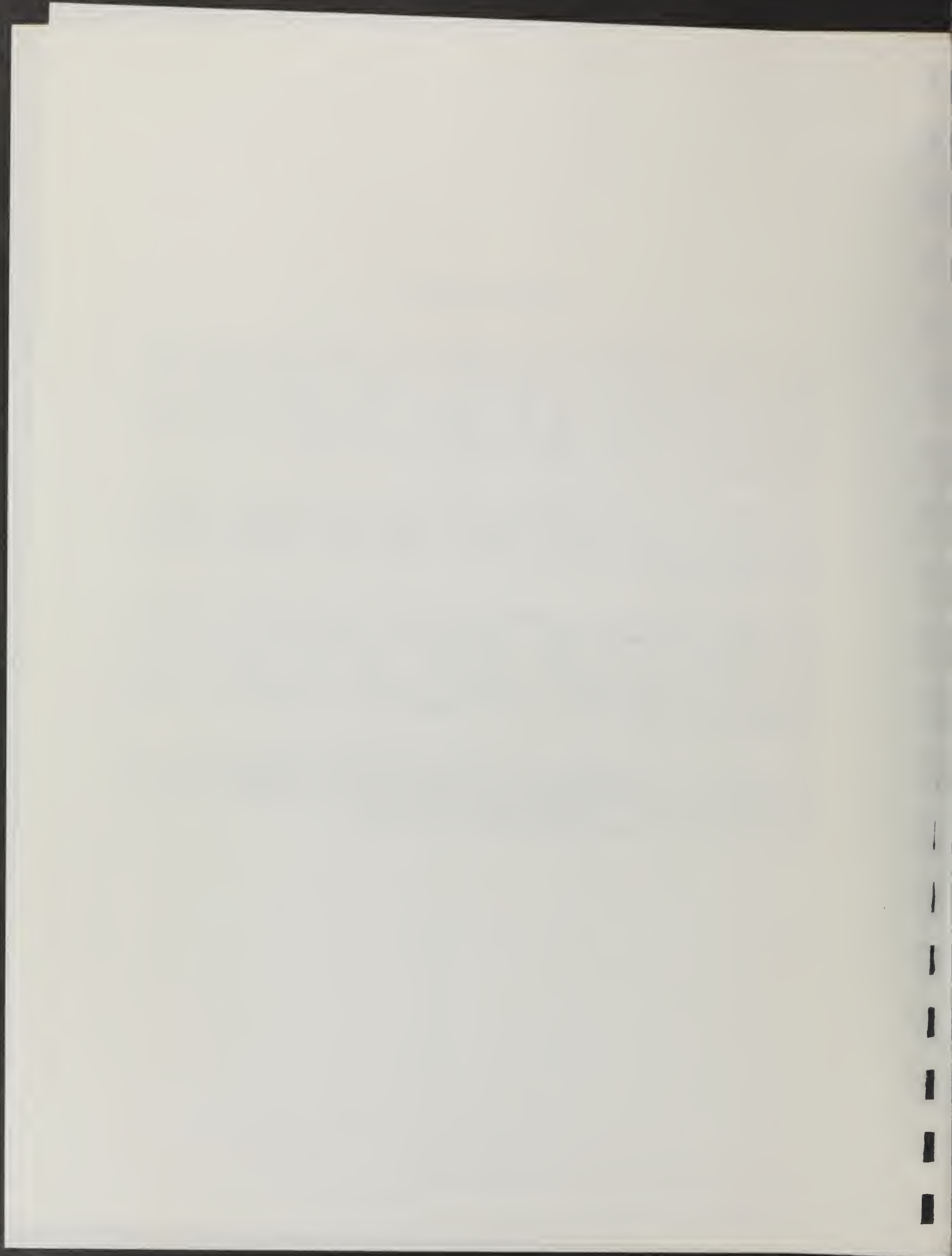
## EXECUTIVE SUMMARY

Along with its development as a transportation center, the Gateway Area, over the years, has become the hub of a large and complicated utility network. Easy access to transportation lowered producers costs and influenced location decisions by industry. Taking advantage of both an expanding local market and the excellent transportation facilities enabling them to serve other markets, utility companies located fuel storage sites and power plants in the area.

Within the past several decades, advances in communications technology have enlarged local telephone systems. Industrial development with its concurrent population growth increased water usage, bringing not only more water mains, but also resulting in a larger system of combined storm and sanitary sewers.

The Gateway Area utility network now includes gas and water pipelines, sewer lines, telephone cables and electrical transmission lines. Gas lines transport fuel to both interstate and community users, while the water system serves the local market only. Sewer lines carry wastes to three main treatment plants in Granite City, East St. Louis and Sauget. Telephone and electric lines provide service for residential, commercial and industrial uses.

The purpose of this study is to identify and evaluate the impacts of the proposed St. Louis Metro Area Rail Gateway Enterprise (MARGE) project on existing utilities. It also serves as input for estimating the cost of constructing the restructured terminal facilities.



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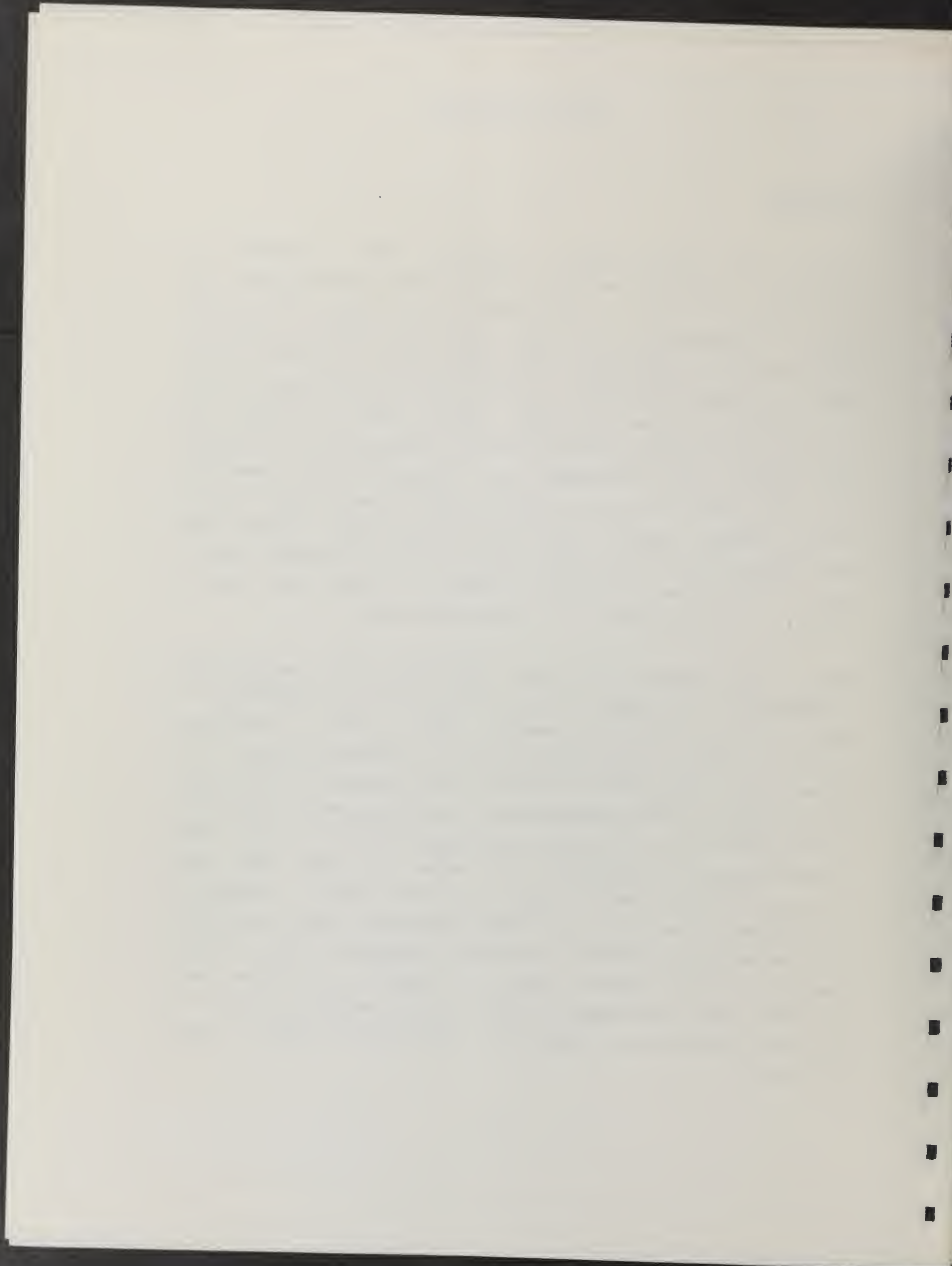
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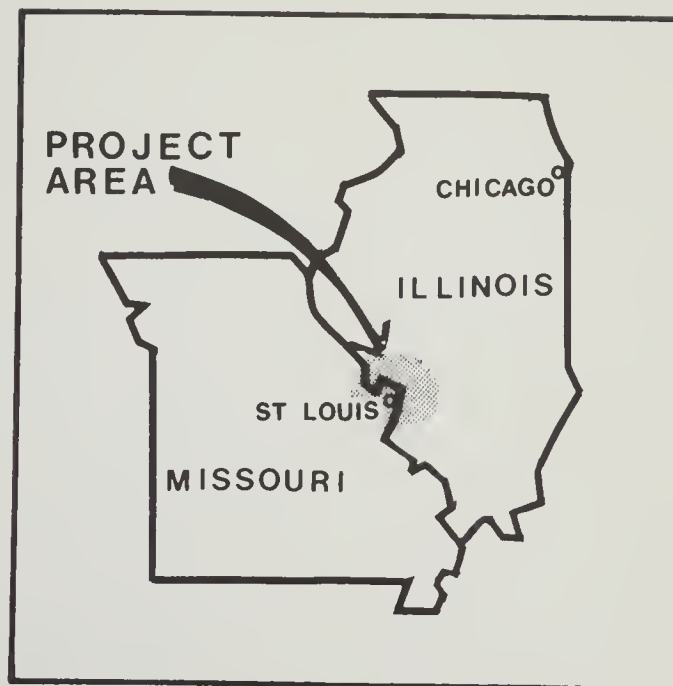
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## EXHIBIT A

## STUDY AREA



VICINITY MAP

## LEGEND

|                    |  |
|--------------------|--|
| ROUTE 3 RELOCATION |  |
| AREA               |  |
| RAILROADS          |  |
| INTERSTATES        |  |
| PROPOSED RAILROAD  |  |
| YARD               |  |
| CITY STREETS       |  |
| EXISTING RAILROAD  |  |
| YARD               |  |

6000 3000 0 5700

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT





STUDY AREA



VICINITY MAP

LEGEND

|                    |   |
|--------------------|---|
| ROUTE 3 RELOCATION |   |
| AREA               |   |
| RAILROADS          | — |
| INTERSTATES        | — |
| PROPOSED RAILROAD  | — |
| YARD               | — |
| CITY STREETS       | — |
| EXISTING RAILROAD  | — |
| YARD               | — |

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SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE KNIGHT



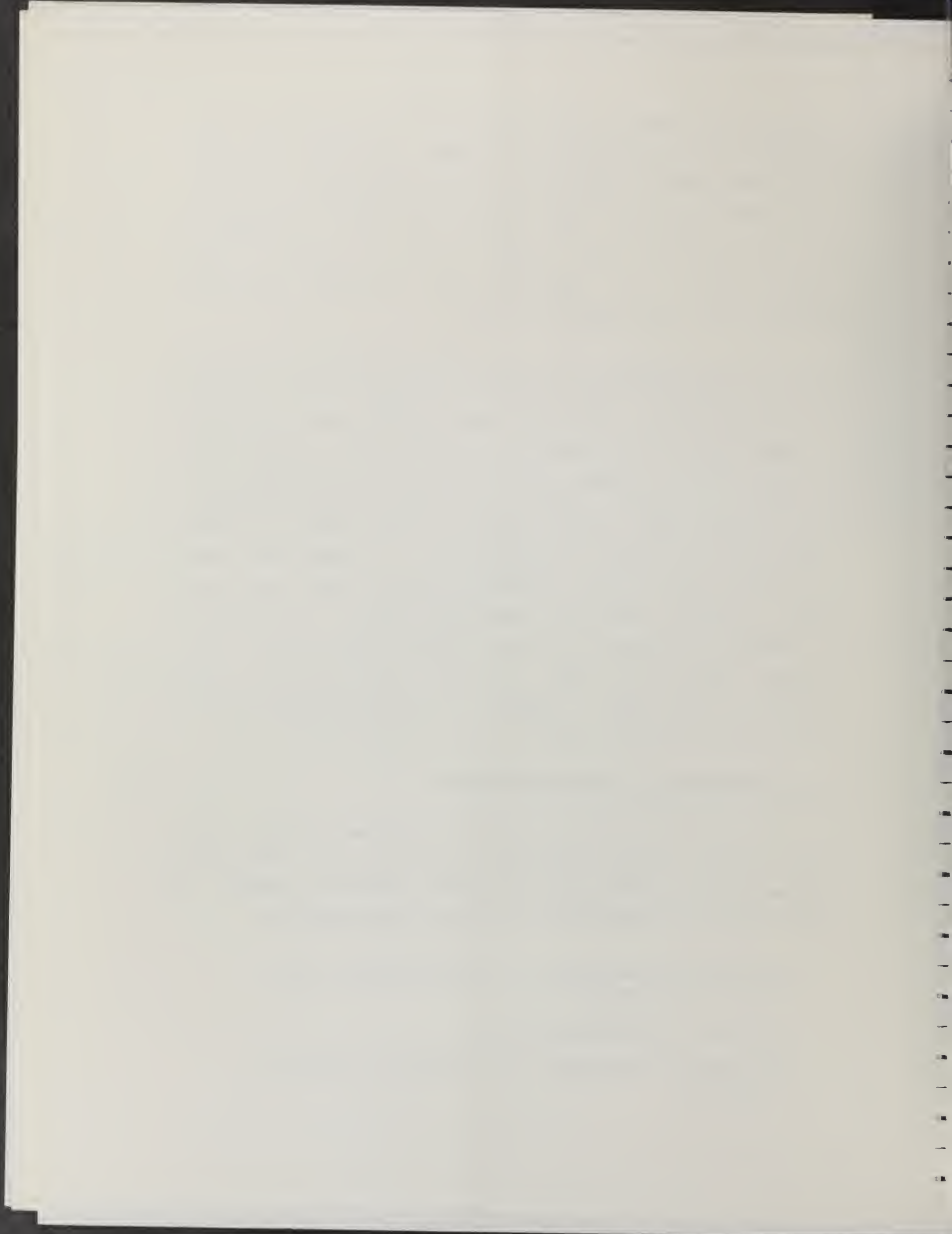
Railroad freight terminals, such as the one in St. Louis, are typically bottlenecks in the operation of rail systems. Increased rail traffic and age have reduced the efficiency of terminal operations and shipments often encounter excessive delays moving through congested switching and classification facilities. Facilities built early in the development of the rail system have become obsolete, but have continued to occupy sizeable amounts of land, constraining land use patterns and forming barriers to social and commercial activity.

In the St. Louis Gateway the situation is worsened by the continued presence of yards and tracks originally built near the river to hold cars awaiting the ferry crossing. These facilities became unnecessary as bridges were built and were used less and less until, in some cases, they were virtually abandoned. As in other urban rail terminals, this has served as a blighting influence on the area's economic development. Further, underutilized railroad properties do not yield tax revenues proportional to the amount of land they cover. The complicated network of yards and track has also produced a contorted street system where delays to vehicular traffic are frequent and lengthy. This combination of problems attributable to railroad influences has lead the Federal Railroad Administration (FRA), in concert with state and local officials, to seek ways to improve rail operations and to create valuable urban development opportunities by freeing riverfront land.

#### St. Louis Metro Area Rail Gateway Enterprise

The efforts of the FRA toward resolving the problems of the St. Louis Gateway through railroad improvements were focused into a three phase program entitled the Metro Area Rail Gateway Enterprise or MARGE. The program focused on accomplishing the following three objectives:

- To improve the efficiency of railroad operations within the St. Louis Terminal
- To reduce rail/community conflicts
- To provide opportunities for economic and community development





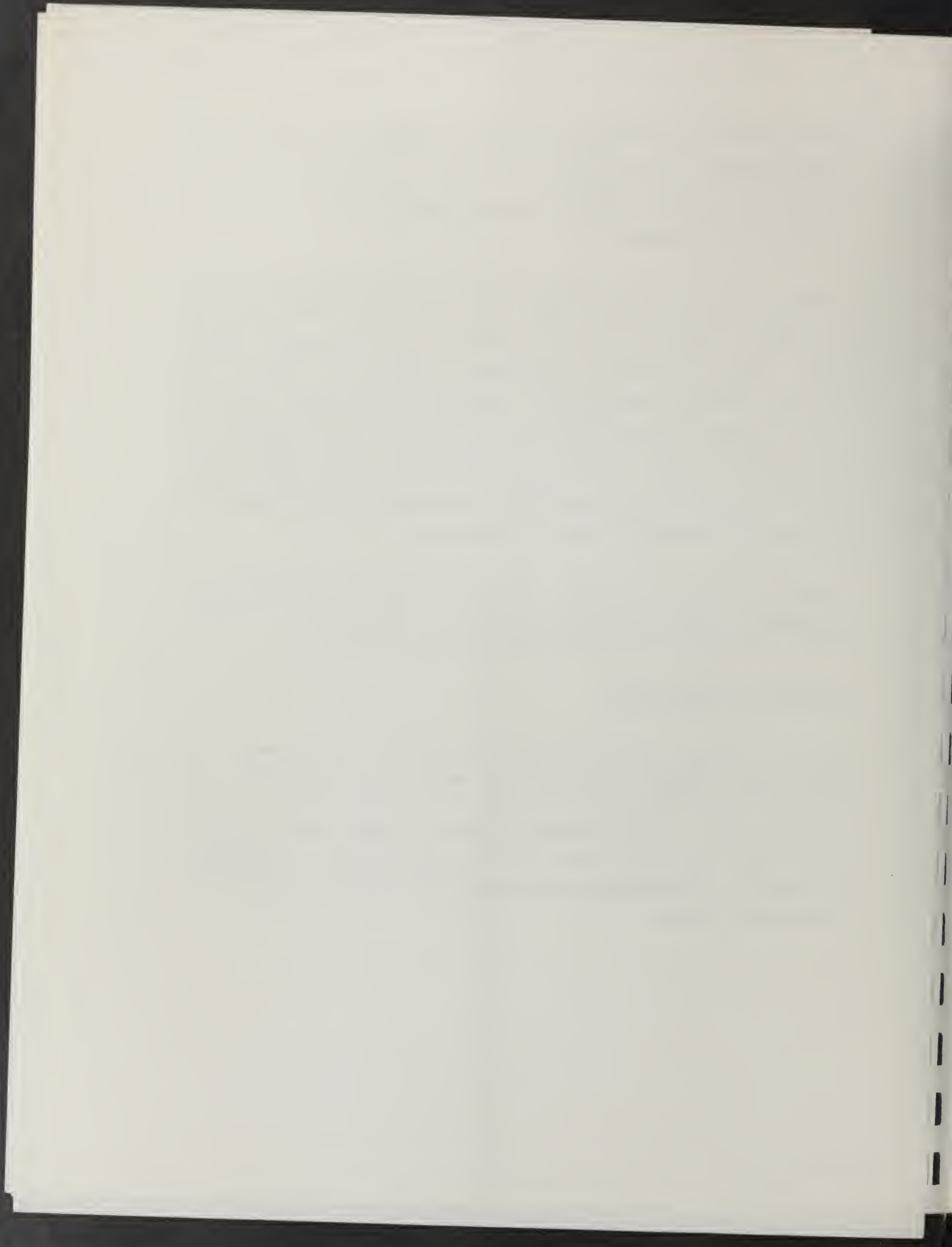
Phase I, which was successfully completed in December, 1977, was limited to the development and preliminary examination of operationally feasible physical restructuring alternatives. This initial study was jointly directed by the Federal Railroad Administration and all the 17 railroads operating in the Terminal.

Phase II, which was begun in January, 1979, is a more comprehensive study to refine the restructuring plans and resolve the various railroad institutional issues as well as the community and environmental impact issues. Phase II includes a cost/benefit analysis for each of the railroads involved, together with a comprehensive cost/benefit analysis of the railroad restructuring, and will culminate in the publication of an Environmental Impact Statement. Managed by the Illinois Department of Transportation (IDOT), under contract to the FRA, Phase II has sought active involvement by the various local communities in the Gateway area, and continued the strong railroad role of Phase I.

Phase III involves final design engineering and actual construction of improvements to the rail yards and corridors in the terminal. It begins after an alternative plan for the restructuring is selected.

#### Restructuring Alternatives

There are currently some 63 railyards in the St. Louis Gateway. The MARGE project proposes consolidation of many of the smaller rail yards into two or three larger yard facilities. Three "build" alternatives are fully evaluated. Each alternative differs by the number of common carrier yards and by the routing of the corridor traffic. In addition, the existing 1979 conditions and the year 2000 "No Build" alternative are analyzed and compared.

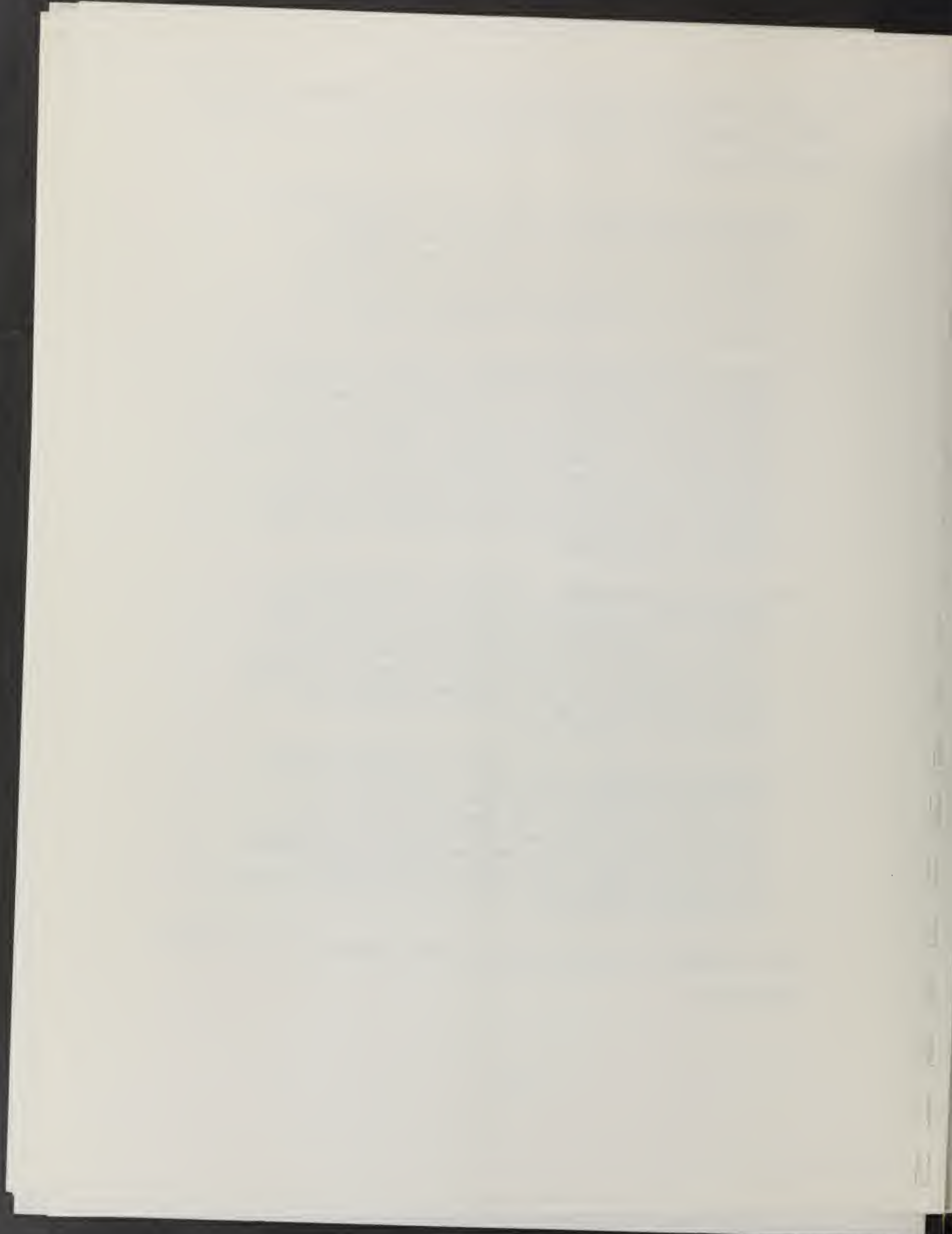




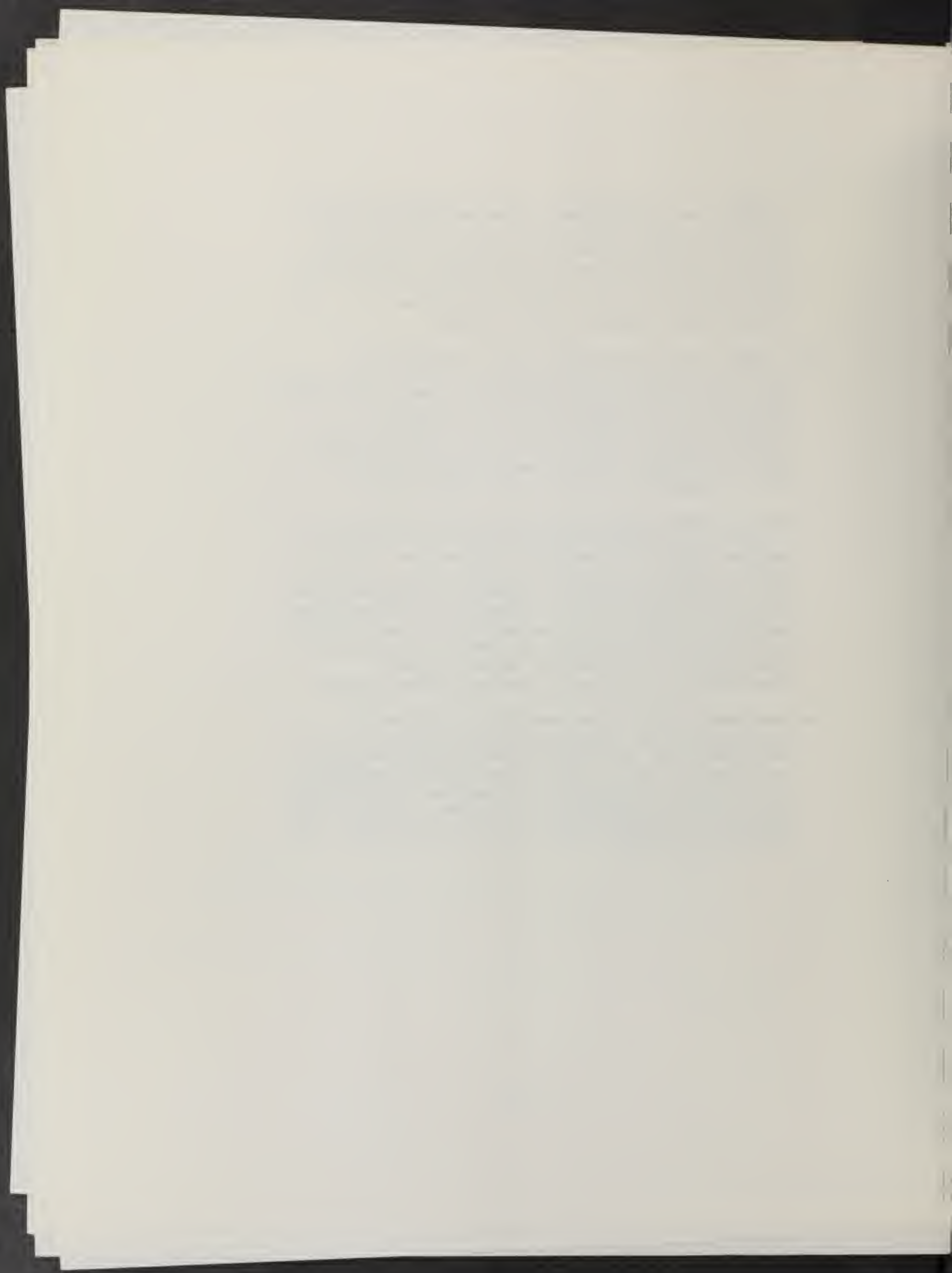
The actual yard restructuring alternatives exhibit differences in both the number of yards which would be constructed and the manner in which those yards would operate:

- Two-Yard Alternative - This plan calls for the expansion of the two existing classification yards. The Gateway Yard, located south of East St. Louis, would be expanded eastward. This area is partly within the boundaries of Centreville, Illinois and is currently agricultural and residential. The Madison Yard, which is just east of Venice, would be modified and expanded south past the residential areas of Brooklyn and National City.
- Three-Yard Directional Alternative - This plan involves the expansion of Gateway Yard, minor improvements to Madison Yard and the construction of a third yard, the "New Yard". This third yard would be located just south of Madison Yard, adjacent to the town of Brooklyn. Madison Yard would then function as an industrial support yard with the classification functions transferred to New Yard. The Directional distinction refers to the operational plan for the yards, which would have one yard handle trains coming from the East and headed West, and the other coming from the West and headed East.
- Three-Yard Bidirectional - This plan is distinguished from the above only in the operational plan of car and train routing. Each yard would route traffic in all directions. The physical configurations of the yards would be similar to the Directional Plan, except that the New Yard would be located approximately 200 feet further from the residential areas of Brooklyn, and that the expanded Gateway Yard would be constructed about 200 feet farther south from the housing areas of Centreville.
- No-Build Alternative - As a bench mark against which to analyze the "build" alternatives, a "no-build" situation has also been studied. This plan assumes that no improvements are made to the Gateway terminal. The No-Build Alternative assumes that the same traffic levels will exist in St. Louis in the Year 2000 as are projected for the Build cases. This traffic, to the extent it overtakes the common classification yards, would be handled at individual rail yards.

Several elements of the consolidation are the same across all the "build" alternatives.



- A segment of Illinois Route 3 would be relocated in order to bypass the expanded yards. The designated section begins just north of Merchants Bridge in Madison County as four-lane highway and continues 3 miles south as a two-lane road through Venice and Brooklyn, past National City, ending at St. Clair Avenue in East St. Louis. The relocation would provide a two- or four-lane, limited-access highway for this distance.
- A common trailer-on-flatcar (TOFC) yard would be constructed east of Brooklyn and north of East St. Louis. The location is convenient to a major interchange connecting Illinois Route 203 and Interstate 70, providing excellent access for trucks. A major rail corridor runs just west of the site. Eight or nine of the thirteen Class I carrier would consolidate their TOFC, or piggyback operations into that one yard.
- There are approximately 82 miles of main line rail corridor in the project areas and much of this would be upgraded under all of the build alternatives. Track would be physically improved by laying new or replacement track and modern centralized signaling systems would be installed. Several new rail connections or interlockings would be constructed, but the locations of the corridors and existing interlockings would remain the same. Rail operations and train routings may vary across alternatives, but the basic corridor network does not.
- Seventeen-eighteen grade-separation structures are warranted under all the build alternatives, due to the large delay- and collision-related conflicts which occur in the project area. Five of these would be warranted because of yard expansions; the remainder are warranted due to conflicts along the rail corridors. Nine of these latter ten structures would also be warranted under the No-Build Alternative.





## METHODOLOGY

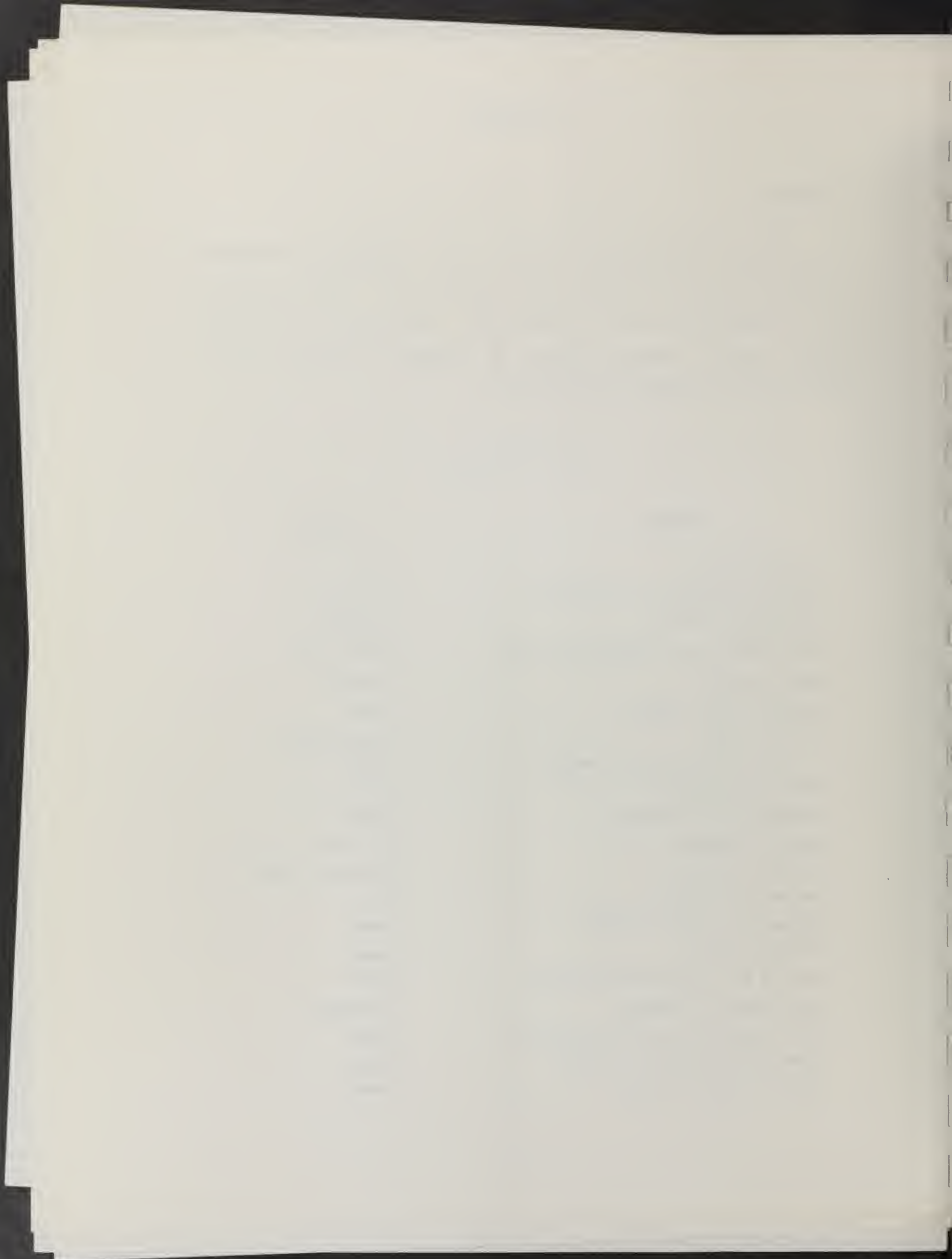
### Inventory

The utility companies listed in Table 1 were contacted for information on the locations of individual service lines. The inventory is based on the best information available from company records. Field verification will be undertaken prior to construction. Confirmation of individual service facility locations should be obtained to assure that all potential conflicts have been identified.

Table 1  
Utility Companies

| <u>Company</u>                       | <u>Utility</u>   |
|--------------------------------------|------------------|
| Village of Dupo                      | Water            |
| American Telephone and Telegraph     | Telephone        |
| Southwestern Bell #1                 | Telephone        |
| Mississippi River Transmission Corp. | Natural Gas      |
| Union Electric                       | Electric         |
| Columbia Water Company               | Water            |
| Illinois Power                       | Gas, Electric    |
| Illinois American Water Company      | Water            |
| Phillips Petroleum                   | Gas              |
| Common Fields of Cahokia             | Water            |
| Explorer Pipeline                    | Gas, Oil         |
| Marathon Pipeline                    | Gas, Oil, Vapors |
| Laclede Gas Company                  | Gas              |
| Metropolitan Sewer District          | Sewer            |
| Village of Dupo                      | Sewer            |
| City of St. Louis Water Division     | Water            |
| Harrisonville Telephone              | Telephone        |
| East Side Levee & Sanitary District  | Sewer            |
| Granite City Sanitary District       | Sewer            |
| Common Fields of Cahokia             | Sewer            |





In order to collect and analyze a manageable amount of data, size limitations were placed on each type of utility. Information was collected from the utility companies regarding minimum diameters for what they considered to be major transmission or "trunk" lines. Pipes or wires meeting or exceeding the dimensions listed in Table 2 were drawn on maps and examined individually. Services smaller than these were not considered to be within the scope of this analysis.

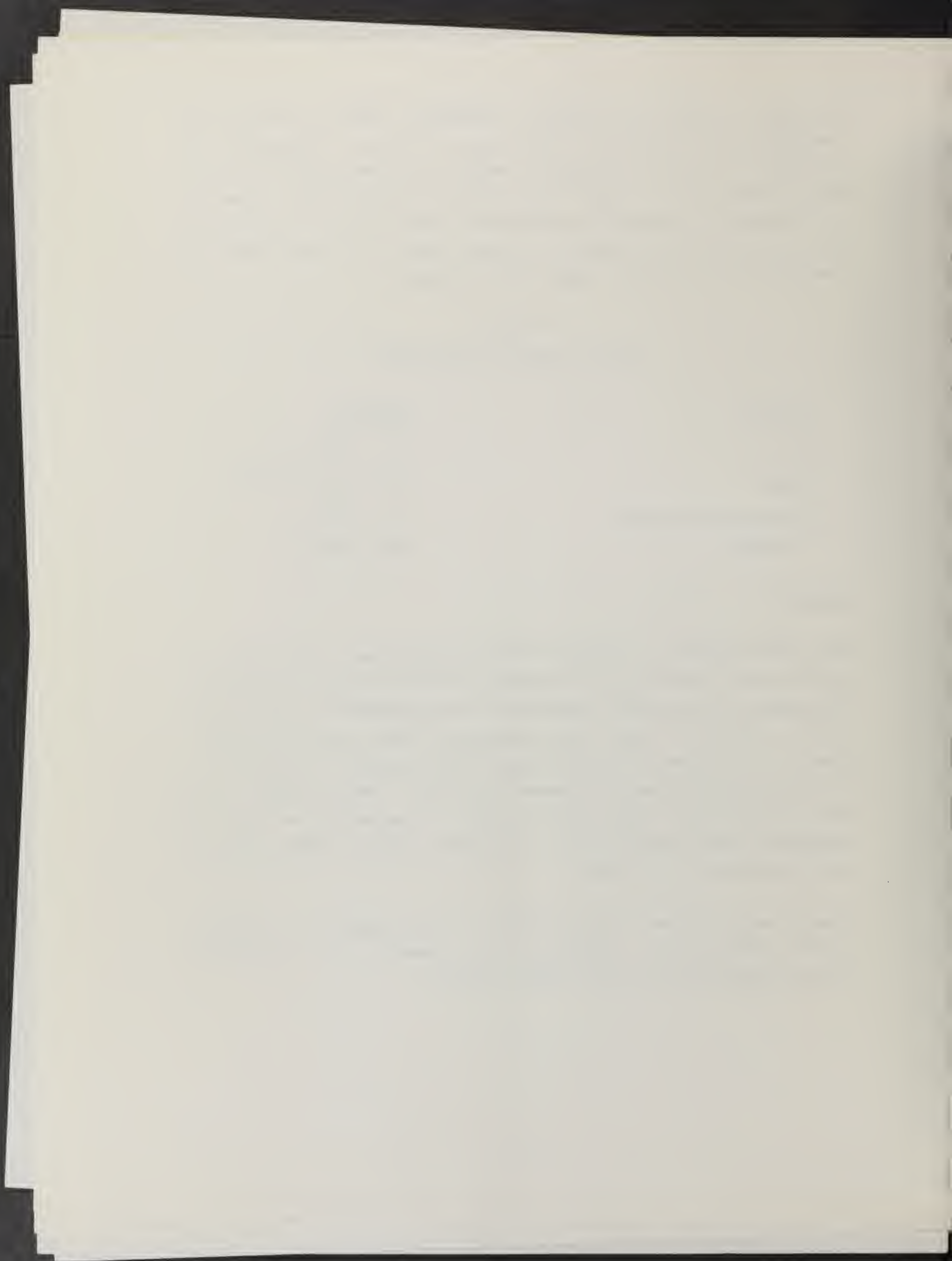
Table 2  
UTILITY LINE SIZE LIMITATIONS

| <u>Utility</u>          | <u>Dimension</u>    |
|-------------------------|---------------------|
| Gas                     | 6 inches            |
| Electric                | 34.5 Kilovolts (KV) |
| Water                   | 10 inches           |
| Sanitary/combined sewer | 36 inches           |
| Telephone               | major conduit       |

### Analysis

After the positions of utility lines were determined with respect to existing rail facilities, the proposed yard modifications and corridor improvements for the build alternatives were superimposed on the map to identify points at which the restructuring would affect utilities. Impacts on utilities will result either from increased rail traffic or from construction of new or expanded facilities. Measures which can be taken to alleviate these effects consist of upgrading the lines or relocating them. The selection of a mitigation measure depends upon the type and severity of the impact.

Impacts were assessed using standards for the placement of utilities provided either by the individual utility company or by the American Railway Engineering Association (AREA) Handbook:

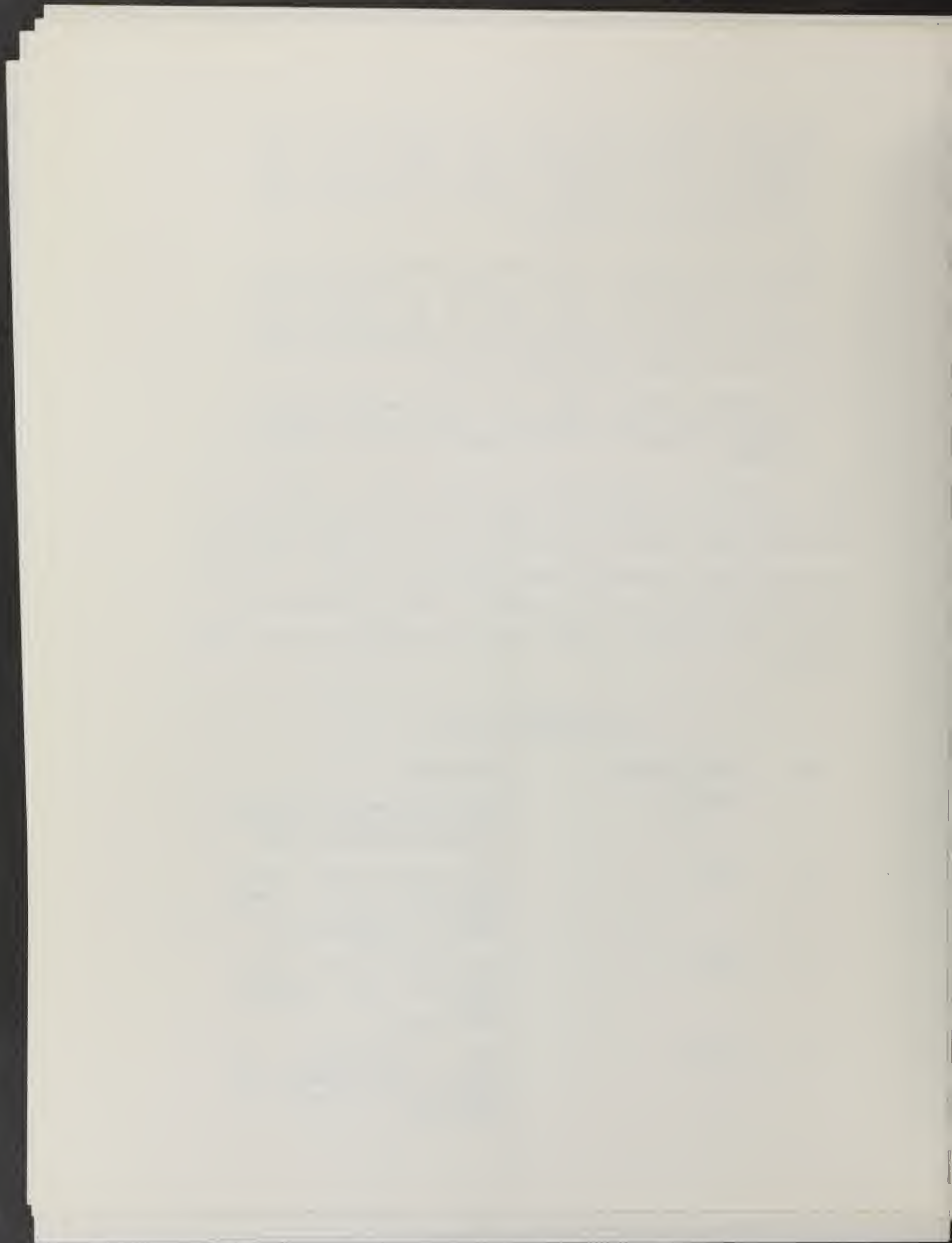


- For water, sewer or gas lines, the Handbook requires that additional casing be provided around pipes to be located beneath or within 25 feet of active railroad track. Such pipelines are to be relocated if they will lie within 45 feet of any portion of a bridge structure, unless a special design has been approved by the engineer.
- For telephone cables, the Handbook stipulates that the top of the utility structure shall be located 5 feet below the top of the railroad track. When excavating near existing tracks ... "the distance from the bottom of the trench at the trenching limits to the centerline of the nearest track, must be at least equal to the depth of the trench, measured from the top of the rail, plus eight (8) feet."
- For overhead electric lines, the minimum required vertical clearance over tracks is 28 feet. Electric towers require a horizontal distance of 20 feet between the nearest track and the tower.

Table 3 provides a classification of impacts based on severity. The application of this ranking to the MARGE project is based on preliminary information about proposed yard configurations and corridor improvements along with general assumptions about construction staging. At locations where sufficient data was not available to make firm determinations of specific site requirements, impacts have been assigned to the more severe categories.

Table 3  
CLASSIFICATION OF IMPACTS

| <u>No.</u> | <u>Type of Impact</u> | <u>Mitigation</u>   |
|------------|-----------------------|---|
| 1          | Temporary             | Precautions would be required during construction to avoid any impact on the utilities.           |
| 2          | Minor                 | The utility would require modification to meet increased load bearing capacity of railroad track. |
| 3          | Major                 | The utility would require relocation to eliminate impact of railroad construction.                |
| 4          | Service               | Major modifications are required and disruption of service may be lengthy and widespread.         |

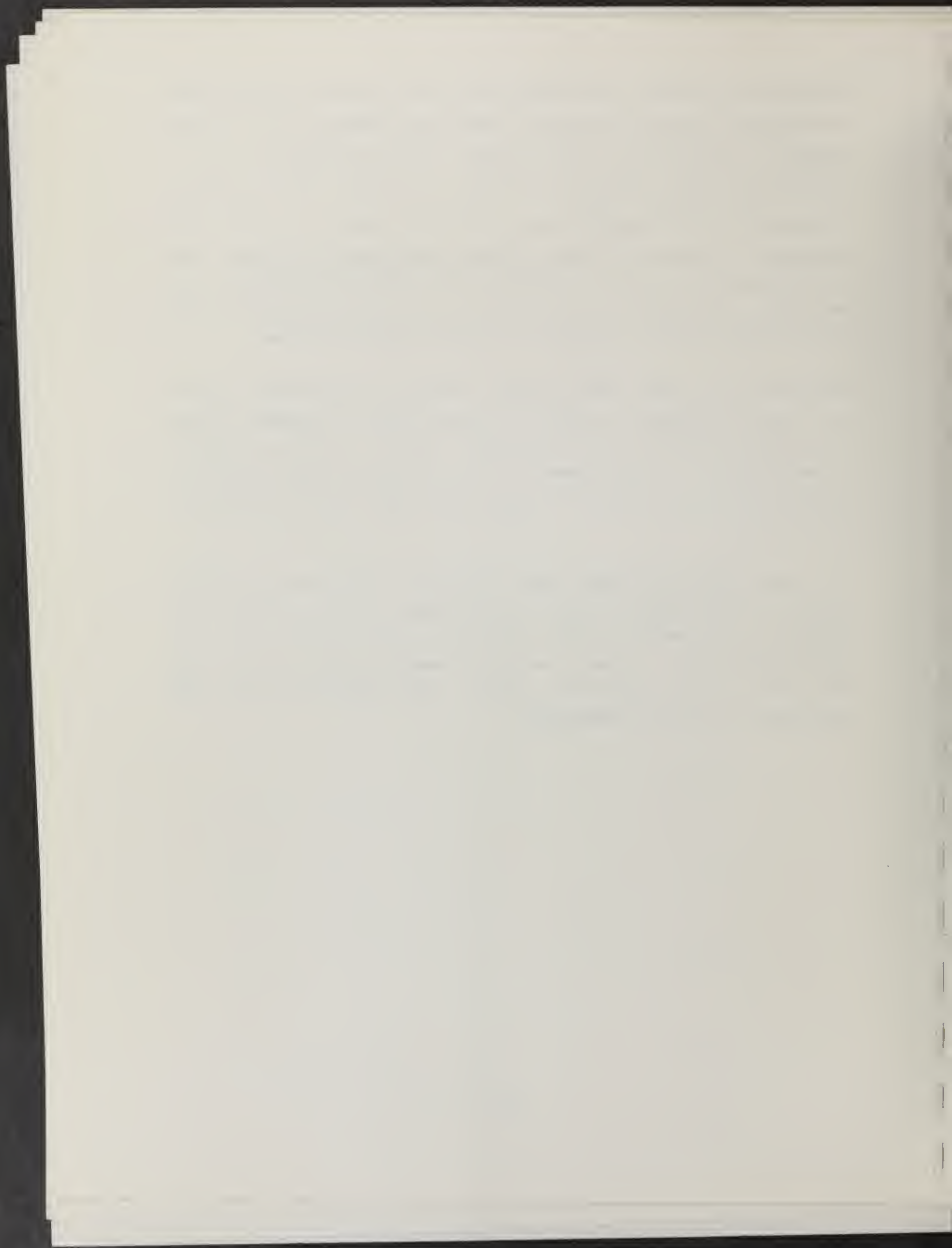




Estimations of the costs for mitigating the utility impacts were based upon their severity required and upon the lengths and diameters of the affected segments. Mitigation for a minor impact involves upgrading the line to withstand additional traffic load factors. In general, this is done by encasing the existing pipe with a larger pipe which will absorb the increased vibration resulting from heavier rail traffic. Unit costs for encasement are derived from Means Building & Construction Cost Data. The upgrading operation includes excavation and backfilling as well as laying the pipe. A unit cost for these activities was added to the materials unit price to come up with a composite unit cost for each size of pipe.

Mitigation for a major impact normally consists of relocation. The per unit cost of relocation is actually less than that of encasement, because excavation and backfill are not necessary. However, relocation, cannot be accomplished for isolated segments, and it therefore becomes cheaper to upgrade the affected portions of a particular network than to relocate the entire line.

The service impact mitigation costs include both relocation cost and the expense of compensation for service disruptions. No cost estimates were applied to the temporary impact categories as this involves very minor service disruptions. In most cases these temporary impacts require simply extra care during construction, perhaps using operations which might otherwise be considered inconvenient.

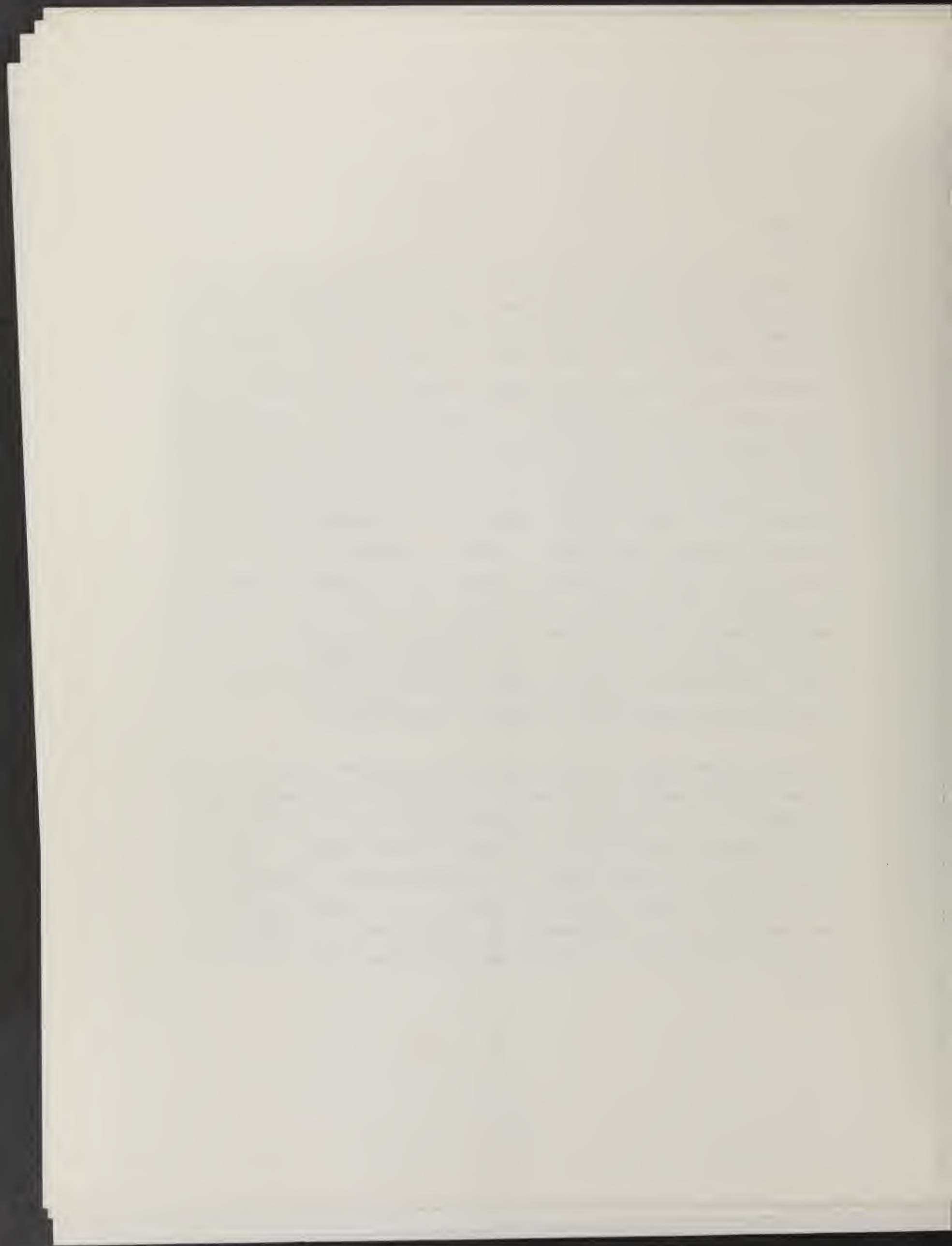


## IMPACTS

Corridors

Improvements to be made in the corridors consist of installing central train control (CTC) signaling systems, laying down additional track in some areas, placing connecting tracks between intersecting railroads and upgrading both the rail itself and the roadbed. Not all of these improvements will be made on all the corridors, but the effects of the overall work will be to allow for increased rail traffic. Implementing these changes does not require substantial construction activity, so the effects on the utility lines lying near rail corridors will be primarily due to increased loads on the pipes. The required modifications will, therefore, fall mostly within category 2 -- upgrading the lines to tolerate increased stress factors. Tables 4 through 8 list the utility type, size, location and length of segment for each required upgrade on the affected rail corridors. The tables also reference plates which indicate impact locations by number on maps of the study area. Exhibit B shows the general location of utility impacts throughout the project area. Since electric lines are carried overhead, in all cases they will be affected only temporarily, falling into impact category #1.

The only severe impact to corridor-related utilities will be in the Willows Corridor where several service relocations will be necessary as a consequence of the extension of McArthur Bridge (Table 6, Plate 4-6). Utility impacts on the west side of the Mississippi River are limited to the Hi-Line Rail Corridor (Table 7). As mentioned above, these fall into the "minor" and "temporary" impact categories. The same improvements to the corridors will be implemented for all of the build alternatives. Therefore, no variation in utility impacts is shown across the different plans.



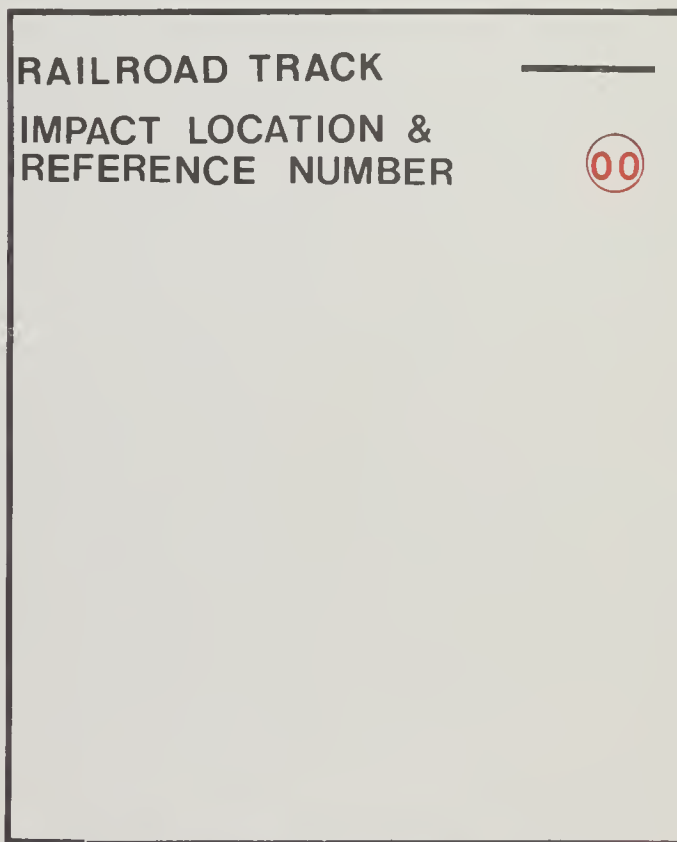


## EXHIBIT B GENERAL UTILITY IMPACT LOCATIONS



VICINITY MAP

### LEGEND



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SCALE IN FEET

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SVERDRUP/ENVIRODYNE/KNIGHT

EXHIBIT B  
GENERAL UTILITY  
IMPACT LOCATIONS



VICINITY MAP

LEGEND



6000 3000 0 5700  
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



No electrical substations or sanitary pumping stations will be affected. The largest impact will be to the sewage treatment plant presently located on the proposed site of the New Yard. The cost for relocating this plant has not been included in this study, but has been accounted for under the displacement section of the Socio-Economic Impact Analysis. The electric and sewer lines which serve the plant have, however, been considered in the calculation of impacts.

An examination of the major utility conflicts across the alternatives was undertaken to determine which would produce the most severe impacts. Costs were used as the means for comparison. Table 13 presents a tabulation of the impacts, and distributes them by alternative. The table demonstrates that the Two-Yard alternative has the lowest cost utility mitigation total. The two operational schemes for the Three-Yard design have identical impact pictures and both have costs which exceed that of the Two-Yard plan by nearly 25%. However, when taken in the context of the entire project cost, this differential loses its significance. It therefore, becomes apparent that, although utility conflicts are of major importance in implementing the restructuring, they cannot be considered to have effects which can determine the selection of an alternative.

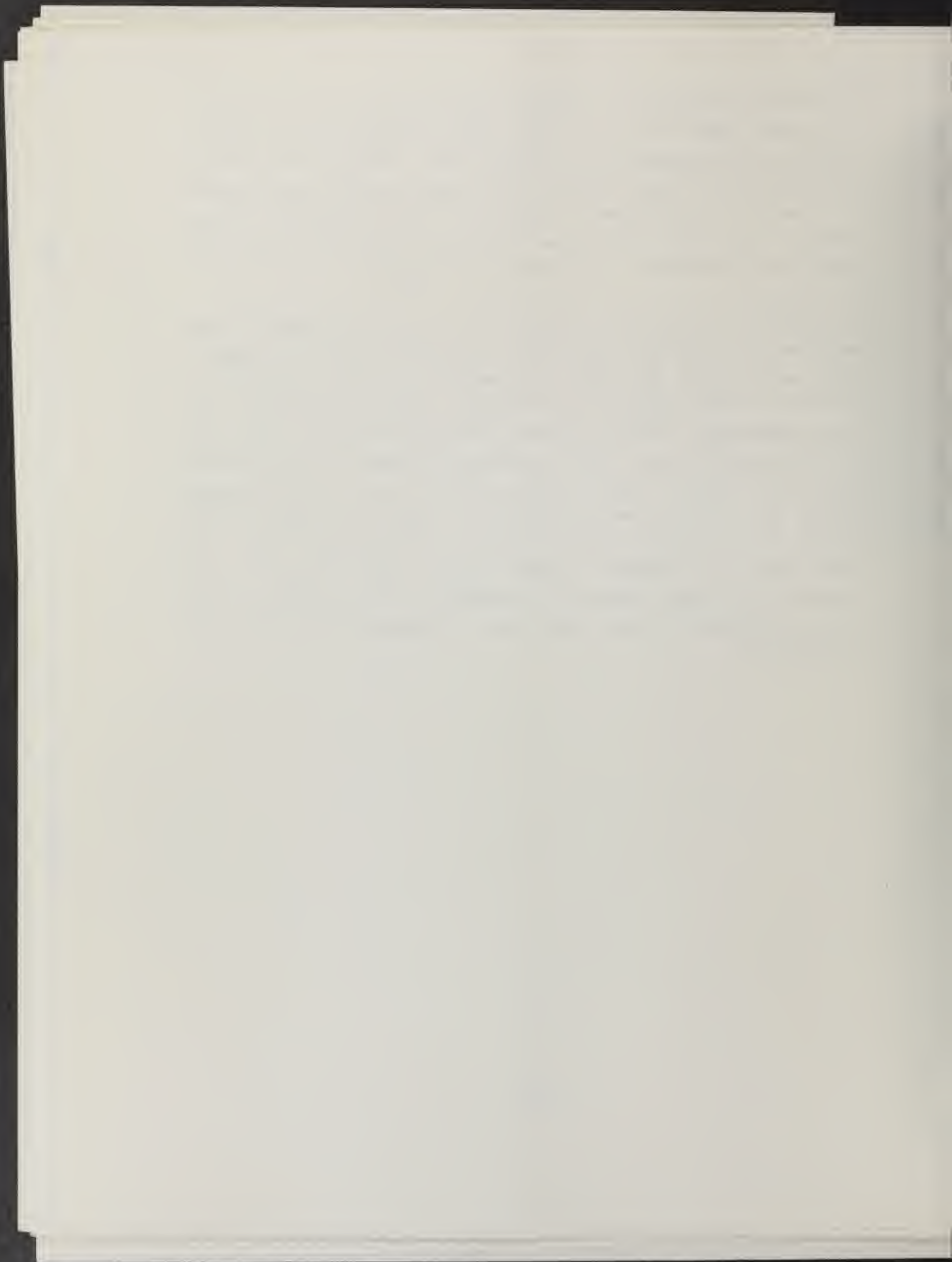




Table 4  
UTILITY IMPACTS ON ALTON & SOUTHERN CORRIDOR

| No. | Plate No. | Utility   | Size    | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments                     |
|-----|-----------|-----------|---------|----------|----------------|----------------|--------------|------------------------------|
| 1   | 1-5       | Gas       | 6"      | 3.8      | 2              | 14'            | 616.00       | Parallel to Piggot Ave.      |
| 2   | 1-5       | Water     | 10"     | 4.0      | 2              | 14'            | 672.00       | Parallel to Bond Ave.        |
| 3   | 1-5       | Electric  | 34.5 KV | 4.5      | 1              | 50'            |              |                              |
| 4   | 1-5       | Gas       | 8"      | 4.7      | 2              | 50'            | 400.00       |                              |
| 5   | 1-5       | Gas       | 8"      | 5.9      | 2              | 14'            | 112.00       | Parallel to Lake Blvd.       |
| 6   | 1-5       | Electric  | 34.5 KV | 5.9      | 1              | 50'            |              |                              |
| 7   | 1-5       | Water     | 12"     | 6.0      | 2              | 14'            | 700.00       | South of State Street        |
| 8   | 1-5       | Sewer     | 36"     | 6.0      | 2              | 14'            | 2,100.00     | North of State Street        |
| 9   | 1-5       | Water     | 12"     | 6.0      | 2              | 14'            | 700.00       |                              |
| 10  | 1-5       | Telephone | conduit | 6.0      | 2              | 14'            | 700.00       |                              |
| 11  | 1-5       | Sewer     | 48"     | 6.3      | 2              | 14'            | 2,800.00     |                              |
| 12  | 1-5       | Water     | 12"     | 6.5      | 2              | 14'            | 700.00       | Parallel to St. Clair Avenue |
| 13  | 1-5       | Telephone | conduit | 6.5      | 2              | 14'            |              |                              |
| 14  | 1-5       | Electric  | 34.5 KV | 6.5      | 1              | 50'            |              |                              |
| 15  | 1-5       | Water     | 20"     | 6.6      | 2              | 14'            | 1,036.00     | Parallel to L & N RR         |
| 16  | 1-5       | Gas       | 18"     | 6.9      | 2              | 50'            | 3,400.00     |                              |
| 17  | 2-5       | Water     | 12"     | 7.6      | 2              | 14'            | 700.00       |                              |
| 18  | 2-5       | Oil       | 8"      | 8.2      | 2              | 14'            | 644.00       |                              |
| 19  | 2-5       | Oil       | 8"      | 9.2      | 2              | 14'            | 644.00       | Parallel to Forest Blvd.     |
| 20  | 2-5       | Gas       | 24"     | 9.4      | 2              | 14'            | 1,232.00     |                              |
| 21  | 3-5       | Gas       | 18"     | 9.7      | 2              | 50'            | 3,400.00     |                              |
| 22  | 3-5       | Gas       | 24"     | 14.0     | 2              | 50'            | 4,400.00     |                              |
| 23  | 3-5       | Gas       | 24"     | 14.0     | 2              | 50'            | 3,700.00     |                              |
| 24  | 3-5       | Gas       | 20"     | 14.00    | 2              | 50'            |              |                              |
| 25  | 3-5       | Electric  | 34.5 KV | 15.0     | 1              | 100'           |              |                              |

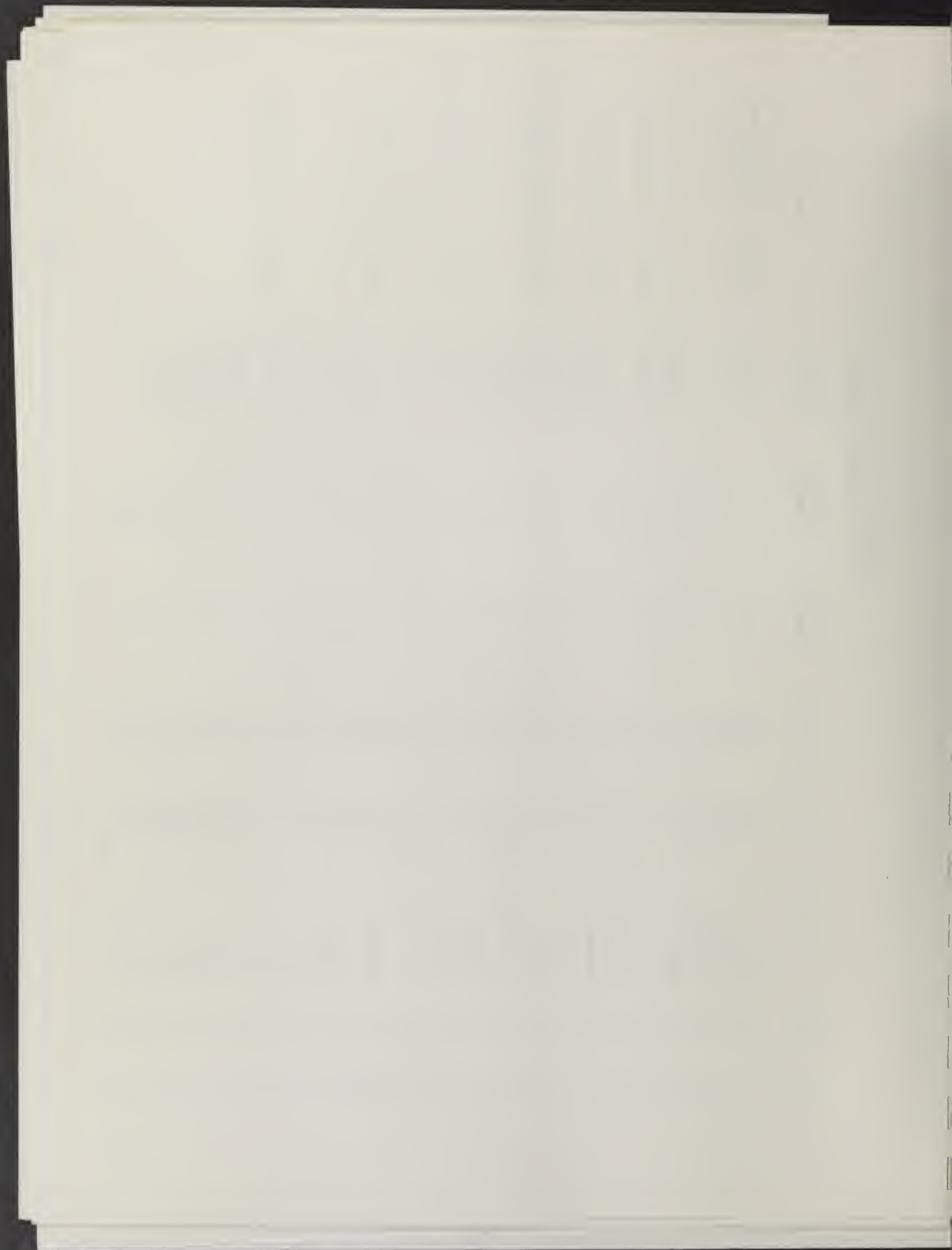


Table 5  
UTILITY IMPACTS ON Q CORRIDOR

| No. | Plate No. | Utility   | Size    | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments  |
|-----|-----------|-----------|---------|----------|----------------|----------------|--------------|---|
| 26  | 1-4       | Electric  | 34.5    | 0.5      | 1              | 50'            |              | Parallel to Broadway  |
| 27  | 2-4       | Water     | 24"     | 281.4    | 2              | 70'            | 6,160.00     |   |
| 28  | 2-4       | Electric  | 34.5    | 281.1    | 1              | 100'           |              |   |
| 29  | 2-4       | Water     | 16"     | 280.8    | 2              | 60'            | 3,660.00     | Parallel to Broadway  |
| 30  | 2-4       | Water     | 20"     | 280.6    | 2              | 165'           | 12,210.00    | Parallel to Mo. Avenue  |
| 31  | 2-4       | Telephone | Conduit | 280.6    | 2              | 160'           | 8,000.00     | Parallel to Dr. Martin Luther King Drive Bridge                                       |
| 32  | 2-4       | Sewer     | 48"     | 277.8    | 2              | 50'            | 10,000.00    | NE of McKinley Bridge   |
| 33  | 2-4       | Electric  | 69 KV   | 277.6    | 1              | 6,000'         |              | Parallel to Q Corridor between McKinley Bridge and Merchants Bridge on the west side. |
| 34  | 2-4       | Electric  | 34.5    | 277.5    | 1              | 100'           |              |   |
| 35  | 2-4       | Gas       | 20"     | 277.4    | 2              | 50'            | 3,700.00     |   |
| 36  | 2-4       | Sewer     | 42"     | 277.4    | 2              | 50'            | 8,750.00     | Parallel to Merchants Bridge Corridor   |
| 37  | 2-4       | Electric  | 69 KV   | 277.4    | 1              | 50'            |              |   |
| 38  | 2-4       | Gas       | 14"     | 277.3    | 2              | 100'           | 5,800.00     |   |

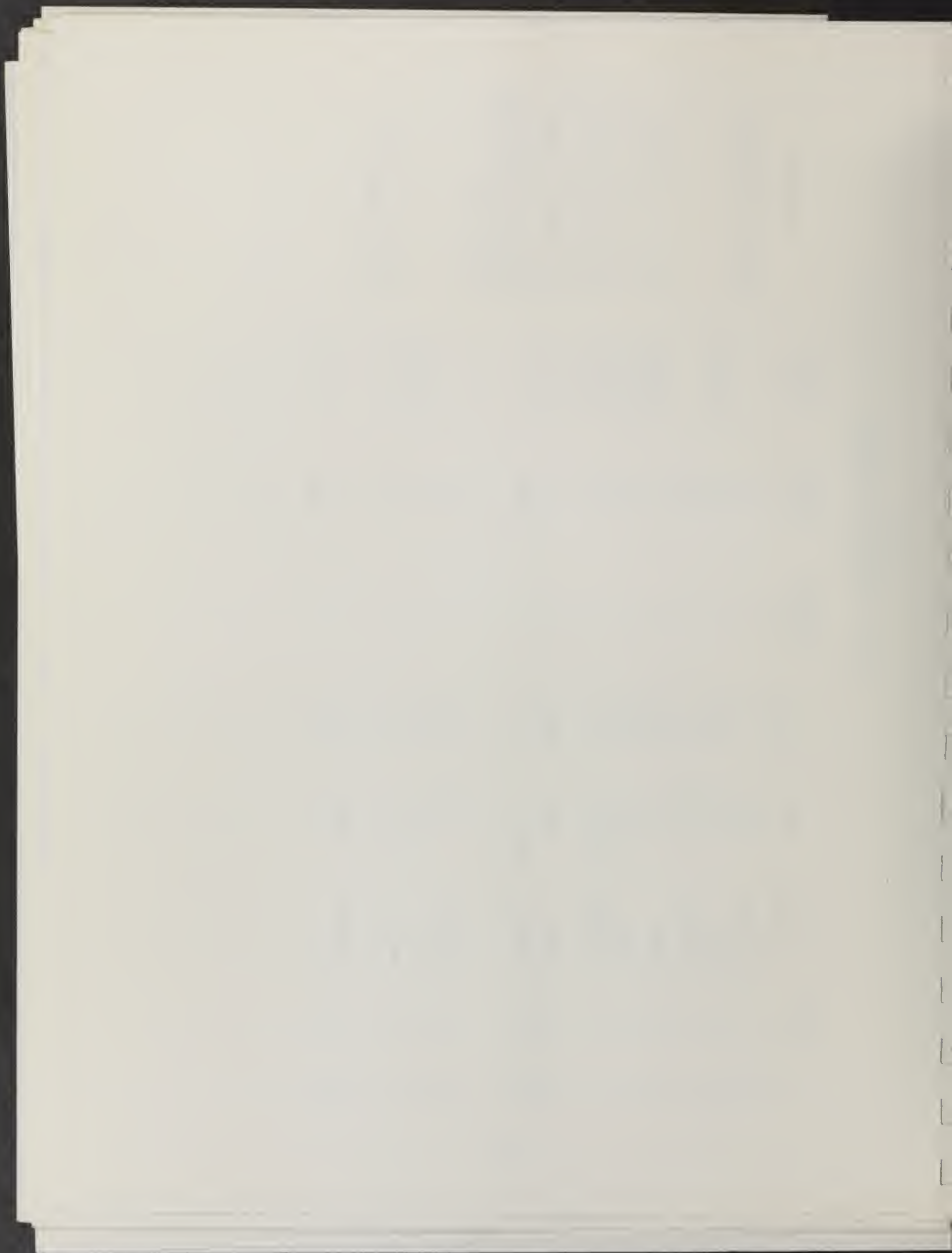




Table 6

## UTILITY IMPACTS ON WILLOWS CORRIDOR

| No. | Plate No. | Utility   | Size    | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments                  |
|-----|-----------|-----------|---------|----------|----------------|----------------|--------------|---------------------------|
| 30  | 1-6       | Electric  | 69 KV   | 7.1      | 1              | 50'            |              | Parallel to Market St.    |
| 40  | 1-6       | Electric  | 34.5 KV | 7.2      | 1              | 50'            |              | Parallel to Broadway Ave. |
| 41  | 1-6       | Electric  | 34.5 KV | 7.3      | 1              | 50'            |              |                           |
| 42  | 3-6       | Electric  | 138 KV  | 9.6      | 1              | 1500'          |              |                           |
| 43  | 3-6       | Electric  | 34.5 KV | 10.2     | 1              | 50             |              |                           |
| 44  | 3-6       | Telephone | Conduit | 10.2     | 2              | 50'            | 2,500.00     |                           |
| 45  | 3-6       | Water     | 12"     | 10.3     | 2              | 50'            | 2,500.00     | Parallel to Rt. 203       |
| 46  | 3-6       | Gas       | 10"     | 10.7     | 2              | 14'            | 672.00       |                           |
| 47  | 3-6       | Electric  | 34.5 KV | 10.6     | 1              | 50'            |              |                           |
| 48  | 4-6       | Electric  | 34.5 KV | 13.7     | 1              | 2400'          |              | Parallel to 20th St.      |
| 49  | 4-6       | Gas       | 8"      | 13.7     | 4*             | 2400'          | 75,360.00    | Parallel to 20th St.      |
| 50  | 4-6       | Water     | 12"     | 13.8     | 4*             | 2400'          | 109,104.00   | Parallel to 20th St.      |
| 51  | 4-6       | Gas       | 18"     | 13.8     | 4*             | 2400'          | 158,400.00   | Parallel to Willows       |
| 52  | 4-6       | Gas       | 18"     | 1        | 4*             | 3400'          | 224,400.00   | Parallel to 20th St.      |

\* Extension of MacArthur Bridge

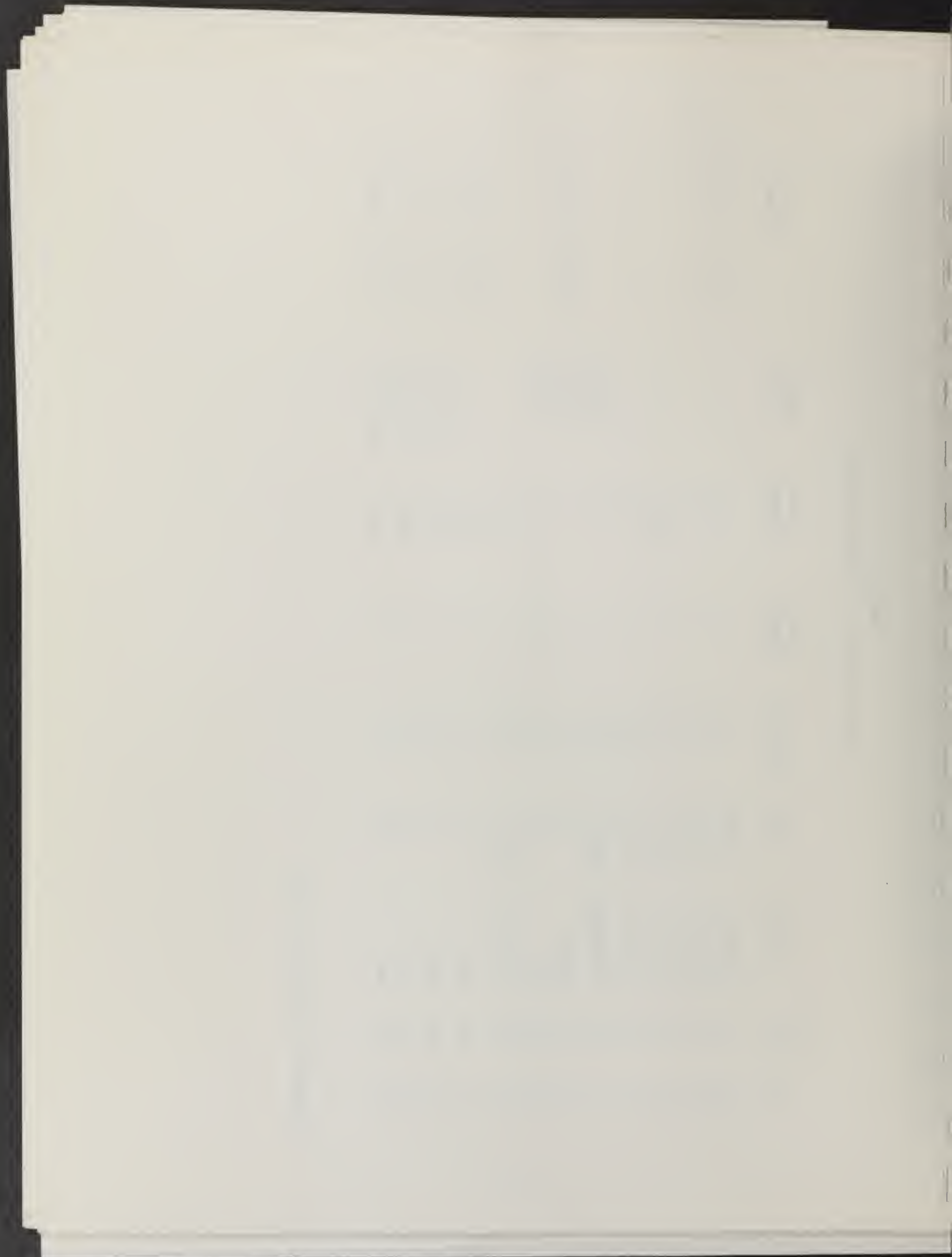


Table 7  
UTILITY IMPACTS ON DUPO I.C.G. RAILROAD CORRIDOR

| No. | Plate No. | Utility   | Size    | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments |
|-----|-----------|-----------|---------|----------|----------------|----------------|--------------|----------|
| 53  | 3-3       | Telephone | Conduit | 633.5    | 2              | 14'            |              |          |
| 54  | 1-2       | Gas       | 10"     | 4.0      | 2              | 50'            | 2,400.00     |          |
| 55  | 1-2       | Sewer     | 126"    | 4.1      | 2              | 14'            | 9,800.00     |          |
| 56  | 1-2       | Electric  | 138 KV  | 4.1      | 1              | 50'            |              |          |
| 57  | 1-2       | Gas       | 10"     | 4.2      | 2              | 50'            | 2,400.00     |          |

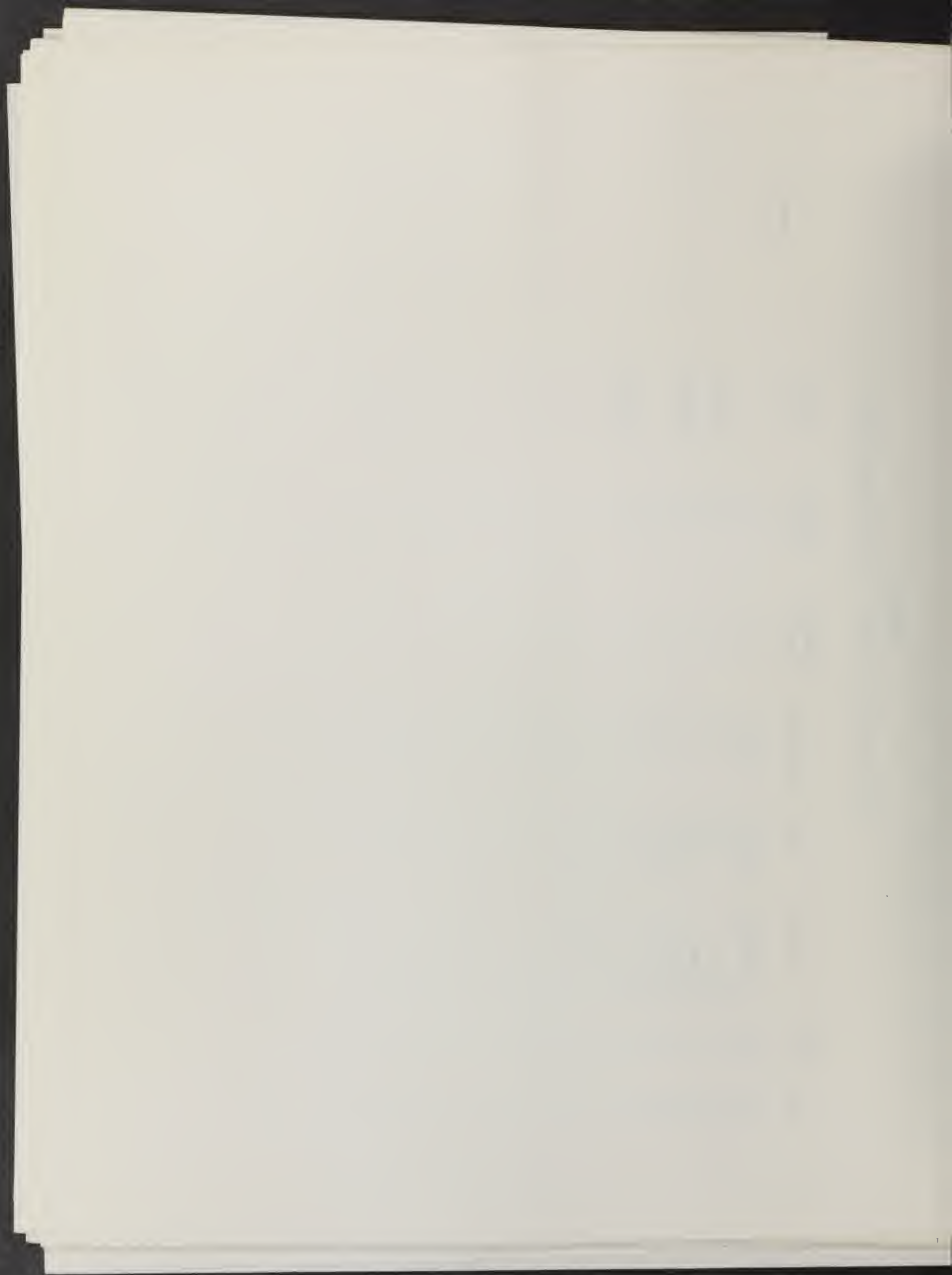
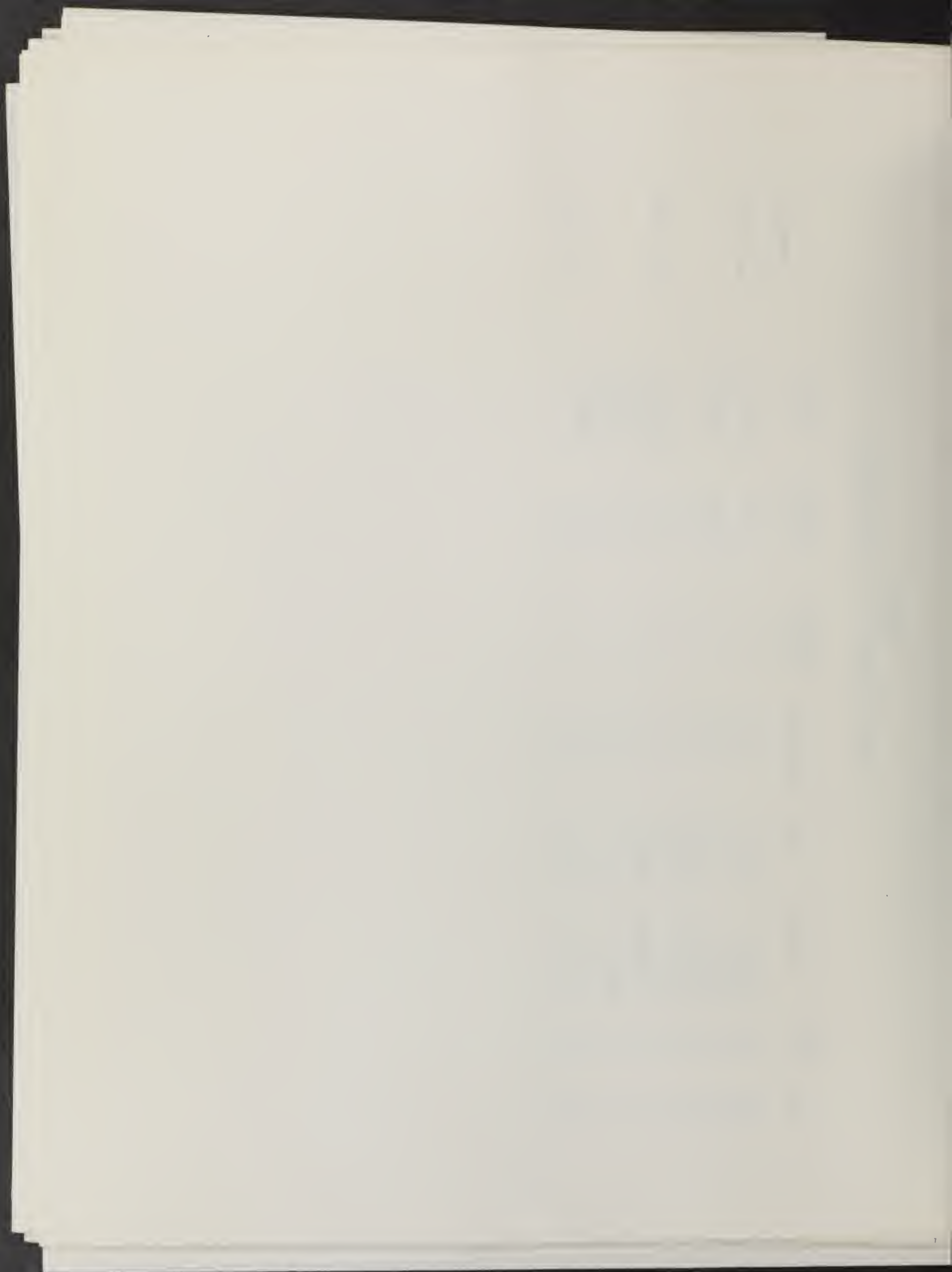




Table 8

## UTILITY IMPACTS ON HI LINE CORRIDOR

| No. | Plate No. | Utility   | Size    | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments    |
|-----|-----------|-----------|---------|----------|----------------|----------------|--------------|-------------|
| 58  | 1-2       | Sewer     | 3'x5'   | 4.8      | 2              | 110'           | 22,000.00    | Box Culvert |
| 59  | 1-2       | Water     | 12"     | 4.8      | 2              | 100'           | 5,000.00     |             |
| 60  | 1-2       | Electric  | 34.5 KV | 4.8      | 1              | 100'           |              | Box Culvert |
| 61  | 1-2       | Sewer     | 11'x12' | 4.8      | 2              | 100'           | 80,000.00    |             |
| 62  | 1-2       | Telephone | Conduit | 4.9      | 2              | 100'           | 5,000.00     |             |
| 63  | 1-2       | Water     | 12"     | 4.9      | 2              | 100'           | 5,000.00     | Box Culvert |
| 64  | 1-2       | Sewer     | 4'x5'   | 4.9      | 2              | 100'           | 25,000.00    |             |
| 65  | 1-2       | Electric  | 34.5 KV | 4.9      | 1              | 100'           |              |             |



## Yards

Generally, severe utility impacts are not expected to result from construction within the yards. Tables 9 through 12 list the impacts for the yards. Although there are slight variations in the number of utility lines to be affected across the different restructuring alternatives, the severity of impacts does not change. In fact, for Gateway Yard (Table 12), the utility impacts are the same under all three plans, Two-Yard, Three-Yard Directional and Three-Yard Bidirectional. The New Yard (Table 10), which will be constructed under either Three-Yard plan, shows no difference in the utility impacts whether the directional or bidirectional operation is used. Madison Yard (Table 9) will be affected most in the Two-Yard Plan. Although similar changes may be required under either of the Three-Yard Plans, the modifications would be included in New Yard construction.

As in the corridors, electric wires in or near the yards are suspended from utility poles and will be affected only temporarily except in the case of New Yard where construction will displace a sewage treatment plant. The plant will have to be relocated, along with the two electric lines which serve it. This relocation will also affect the large sewer pipe running into the plant. The only other service relocation necessary will result from the construction of the Trailer-on-Flatcar (TOFC) Yard on the eastern edge of the project area (Table 11). The length of the sewer line which currently crosses the site, precludes the possibility of simply encasing it. The expense involved in upgrading the pipe makes relocation the more attractive mitigation measure. If a phased construction program is undertaken for the MARGE project, this relocation would be deferred to the later stages.

## Conclusions

In summary, there do not appear to be extensive utility problems with any of the rail restructuring alternatives. Most of the rail facilities which will undergo restructuring are located at some distance from residential areas, thus minimizing conflict with heavy utility service.

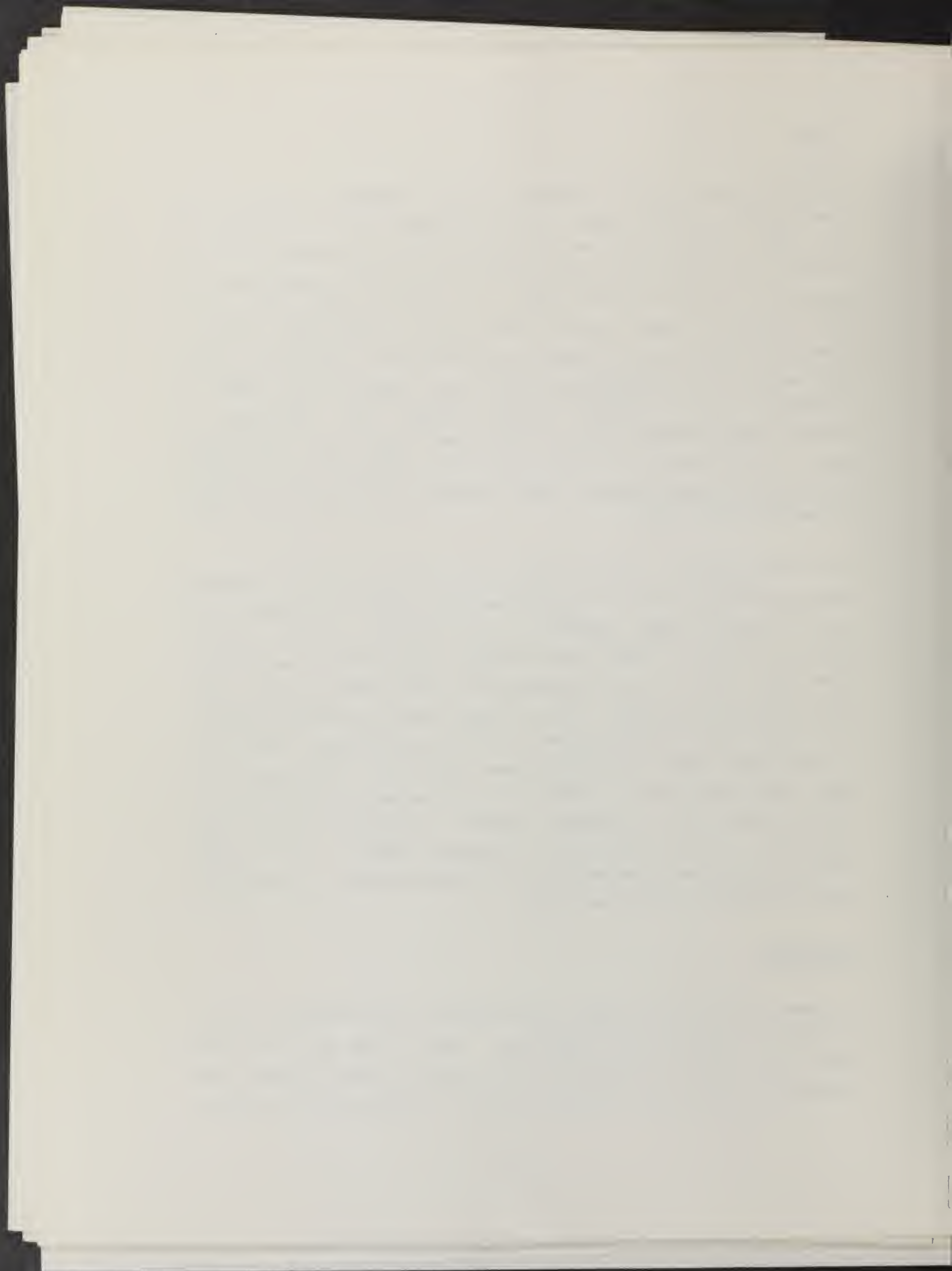




Table 9  
UTILITY IMPACTS FOR MADISON YARD

| No.              | Plate No. | Utility  | Size   | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments |
|------------------|-----------|----------|--------|----------|----------------|----------------|--------------|----------|
| I. Two-Yard Plan |           |          |        |          |                |                |              |          |
| A.               | 2-2       | Water    | 48"    |          | 2              | 3700'          | 740,000.00   |          |
| A.               |           | Water    | 24"    |          | 2              | 3700'          | 325,600.00   |          |
| B.               |           | Water    | 12"    |          | 2              | 600'           | 30,000.00    |          |
| C.               |           | Water    | 36"    |          | 2              | 400'           | 22,500.00    |          |
| C.               |           | Water    | 14"    |          | 2              | 400'           | 8,700.00     |          |
| C.               |           | Water    | 16"    |          | 2              | 400'           | 9,150.00     |          |
| C.               |           | Water    | 20"    |          | 2              | 400'           | 10,200.00    |          |
| D.               |           | Water    | 36"    |          | 2              | 200'           | 19,500.00    |          |
| E.               |           | Water    | 12"    |          | 2              | 75'            | 3,750.00     |          |
| E.               |           | Water    | 16"    |          | 2              | 75'            | 4,575.00     |          |
| F.               |           | Gas      | 6"     |          | 2              | 130'           | 5,720.00     |          |
| G.               |           | Electric | 69KV   |          | 1              | 1200'          |              |          |
| G.               |           | Electric | 138KV  |          | 1              | 1200'          |              |          |
| H.               |           | Electric | 138KV  |          | 1              | 700'           |              |          |
| I.               |           | Electric | 34.5KV |          | 1              | 400'           |              |          |

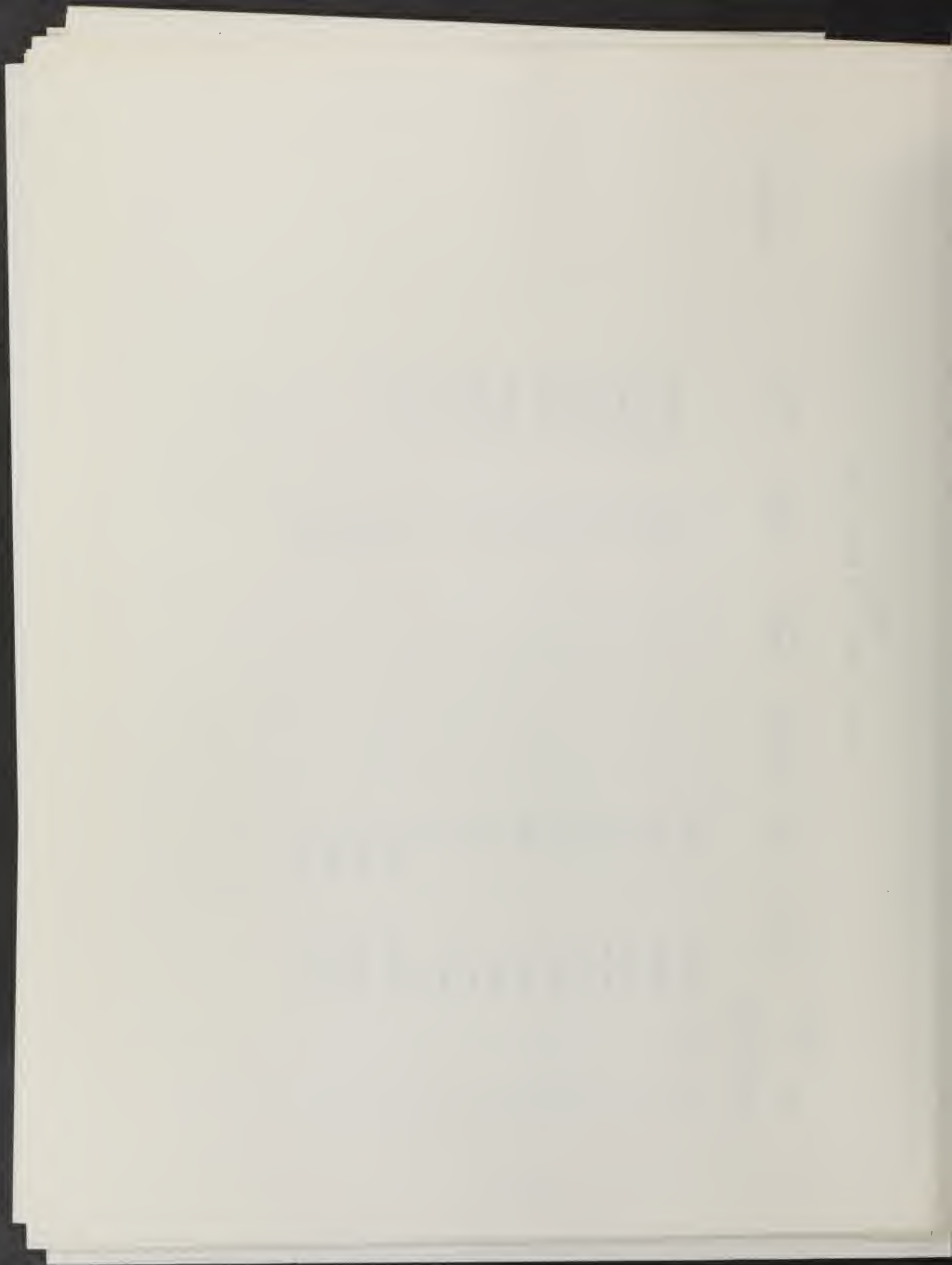


Table 10  
UTILITY IMPACTS FOR NEW YARD  
(Both Operational Plans)

| No. | Plate No. | Utility  | Size   | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments             |
|-----|-----------|----------|--------|----------|----------------|----------------|--------------|----------------------|
| B.  | 1-2       | Water    | 12"    |          | 2              | 1400'          | 70,000.00    | Parallel to Bend Rd. |
| F.  |           | Gas      | 6"     |          | 2              | 2000'          | 88,000.00    |                      |
| C.  | 2-2       | Water    | 36"    |          | 2              | 2200'          | 330,000.00   |                      |
| C.  |           | Water    | 14"    |          | 2              | 2200'          | 127,600.00   |                      |
| C.  |           | Water    | 16"    |          | 2              | 2200'          | 134,200.00   |                      |
| C.  |           | Water    | 20"    |          | 2              | 2200'          | 140,600.00   |                      |
| E.  |           | Water    | 12"    |          | 2              | 1800'          | 90,000.00    |                      |
| E.  |           | Water    | 16"    |          | 2              | 1800'          | 109,800.00   |                      |
| F.  |           | Gas      | 6"     |          | 2              | 2200'          | 86,800.00    |                      |
| G.  |           | Electric | 69KV   |          | 1              | 1400'          |              |                      |
| G.  |           | Electric | 138KV  |          | 1              | 1400'          |              |                      |
| H.  |           | Electric | 138KV  |          | 1              | 2200'          |              |                      |
| I.  |           | Electric | 34.5KV |          | 3              | 2200'          | 75,000.00    |                      |
| J.  |           | Electric | 34.5KV |          | 3              | 3000'          | 75,000.00    |                      |
| K.  |           | Sewer    | 60"    |          | 3              | 3400'          | 428,400.00   |                      |

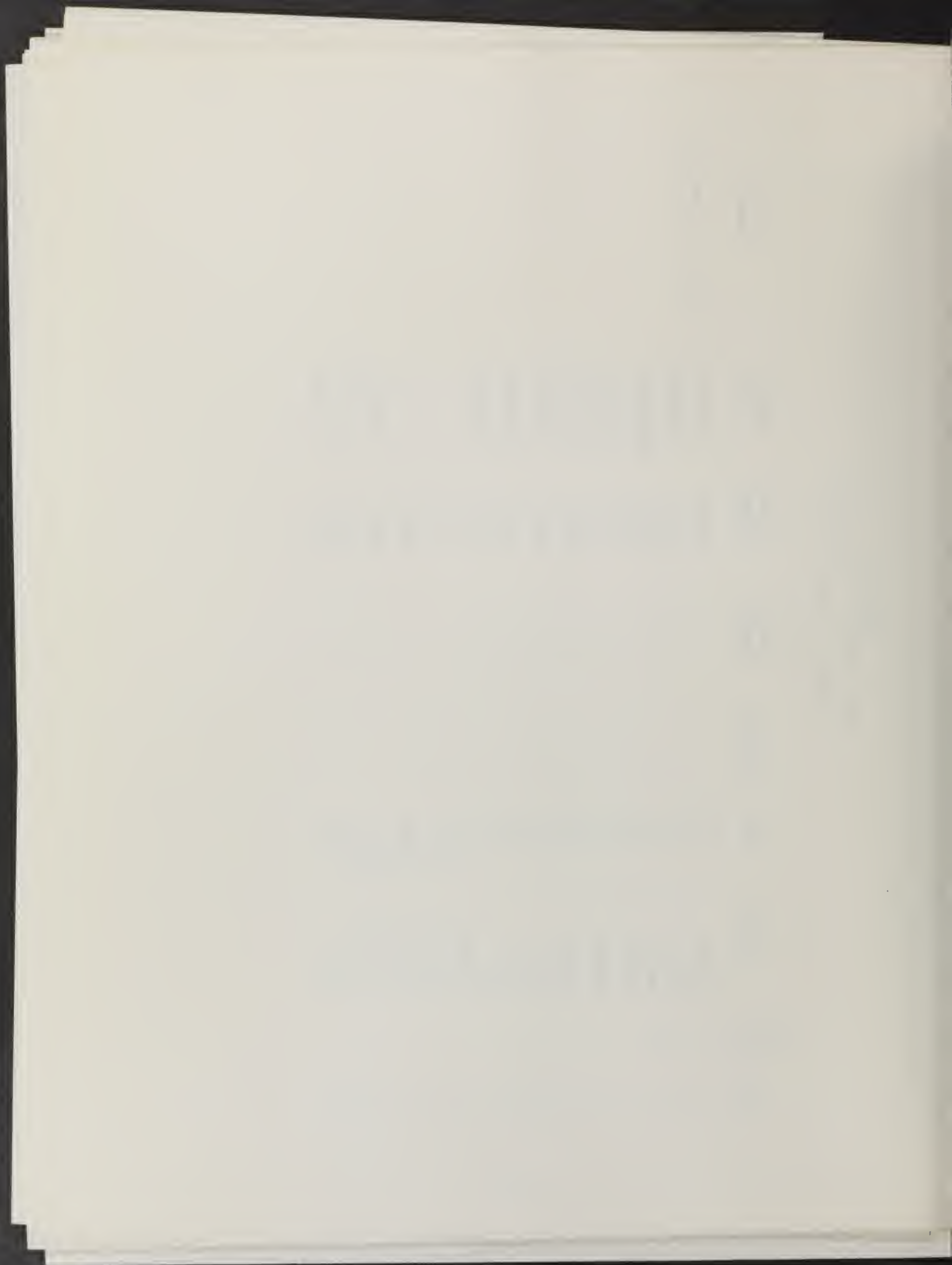


Table 11  
UTILITY IMPACTS FOR TRAILER-ON-FLATCAR YARD

| No. | Plate<br>No. | Utility | Size | Milepost | Type of<br>Impact | Approx.<br>Length | Approx.<br>Cost | Comments |
|-----|--------------|---------|------|----------|-------------------|-------------------|-----------------|----------|
| M.  |              | Gas     | 10"  |          | 2                 | 700'              | 33,600.00       |          |
| N.  |              | Sewer   | 54"  |          | 3                 | 2600'             | 286,000.00      |          |



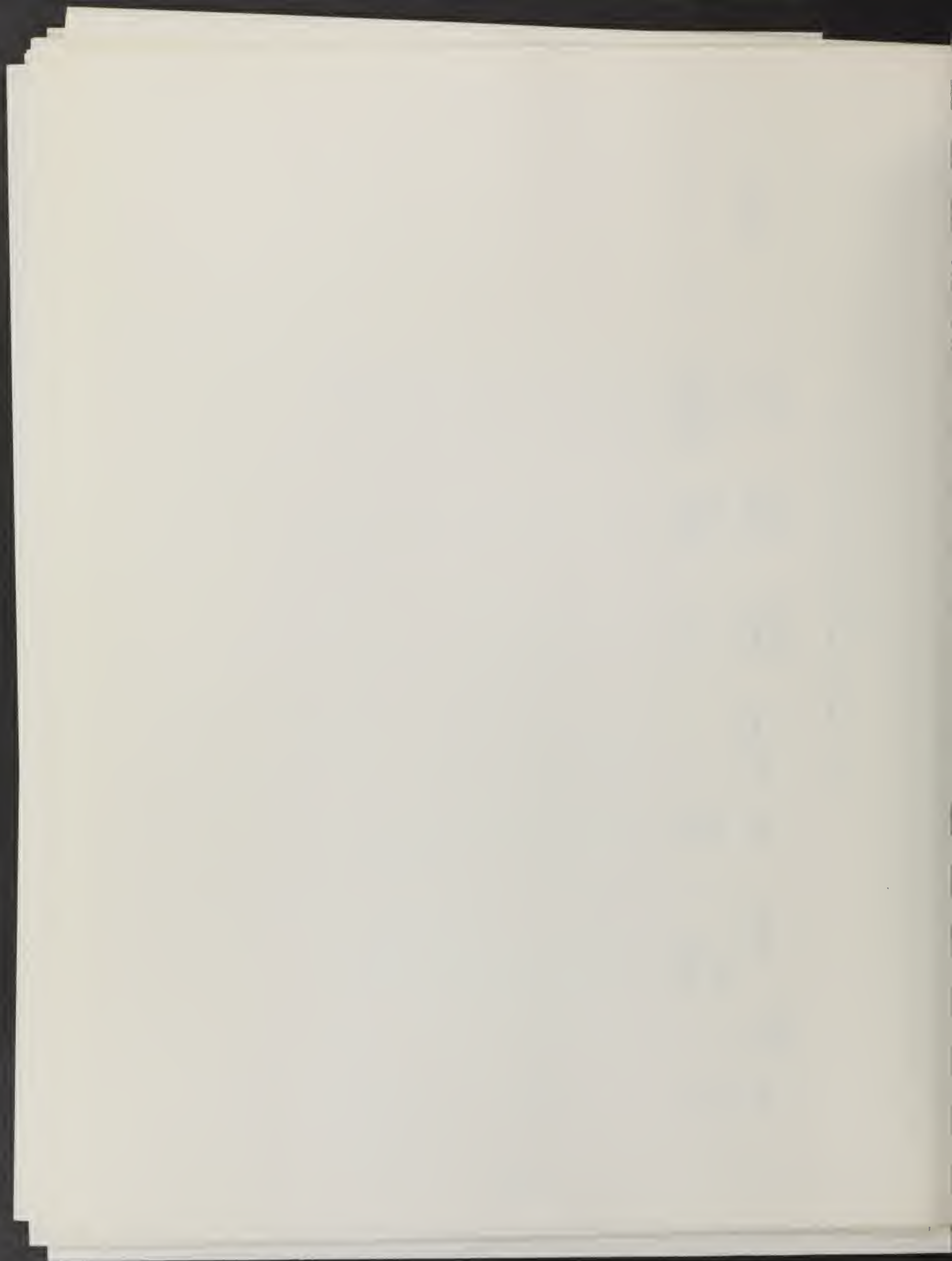


Table 12  
UTILITY IMPACTS FOR GATEWAY YARD  
(All Configurations)

| No. | Plate No. | Utility  | Size   | Milepost | Type of Impact | Approx. Length | Approx. Cost | Comments |
|-----|-----------|----------|--------|----------|----------------|----------------|--------------|----------|
| O.  | 1-2       | Electric | 34.4KV |          | 1              | 900'           |              |          |
| P.  |           | Water    | 10"    |          | 2              | 400'           | 19,200.00    |          |
| Q.  |           | Gas      | 8"     |          | 2              | 100'           | 4,600.00     |          |
| R.  |           | Gas      | 8"     |          | 2              | 75'            | 3,450.00     |          |

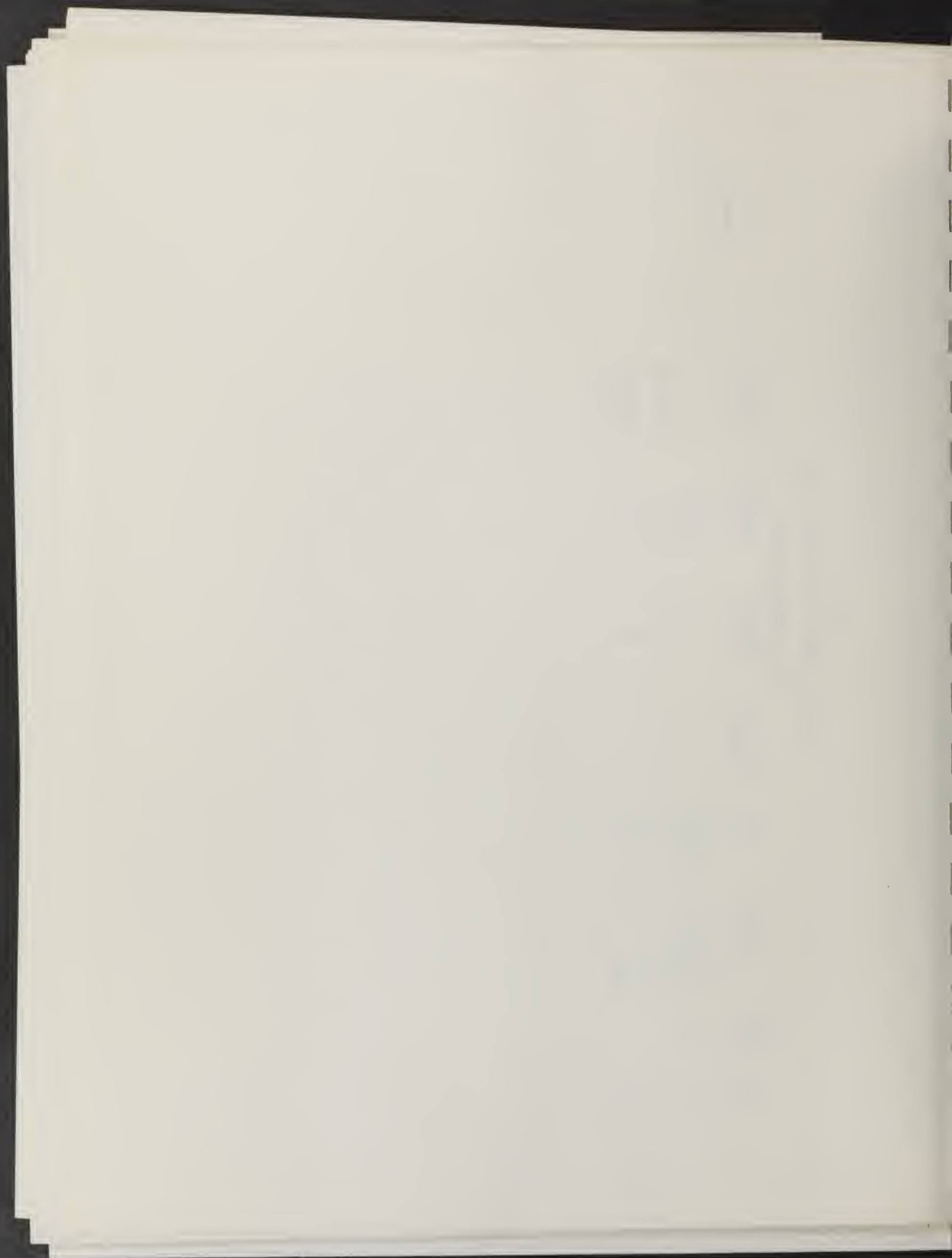


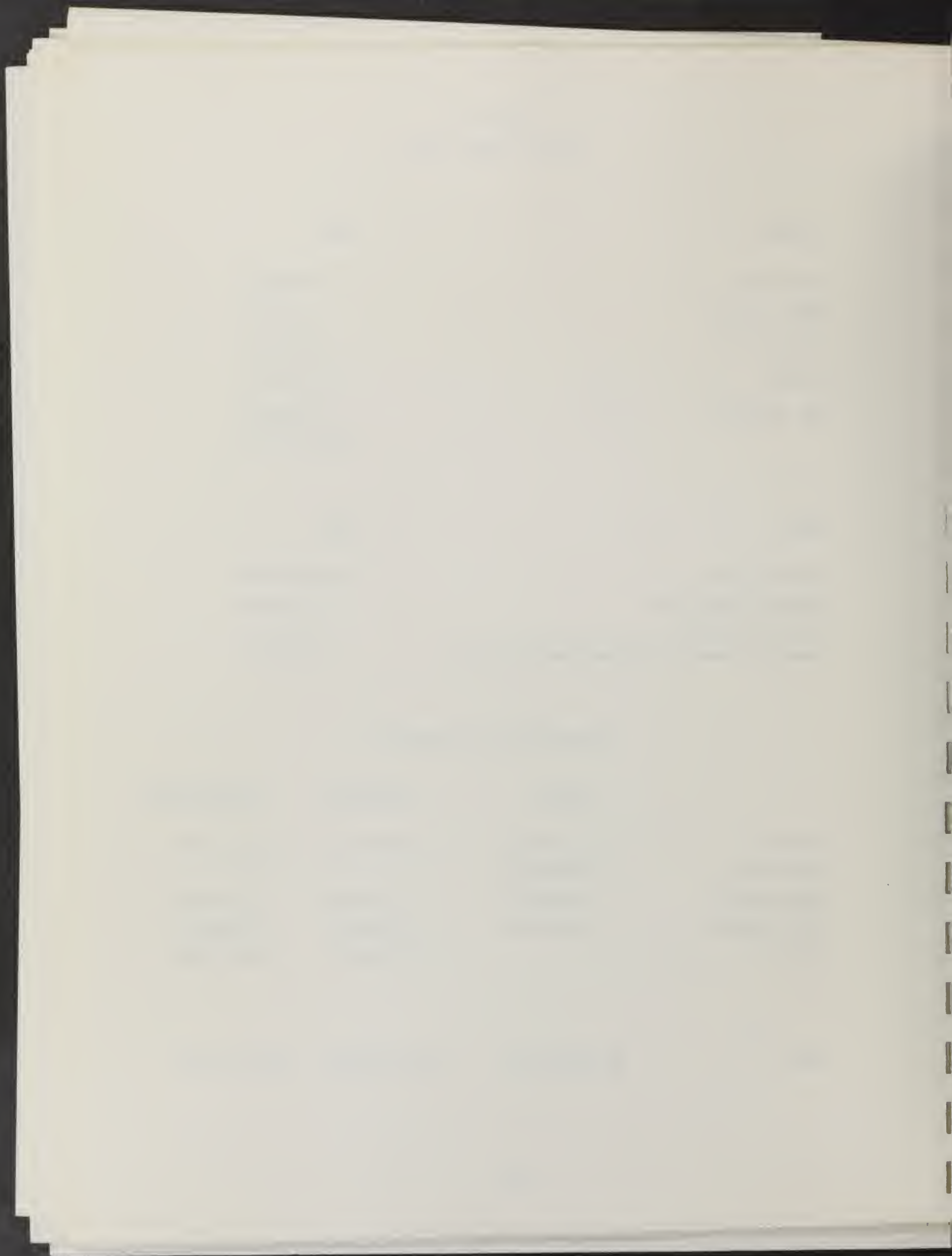
Table 13  
Utility Impact Costs

| <u>Corridor</u> | <u>Cost</u>      |
|-----------------|------------------|
| Q Corridor      | \$ 58,280.00     |
| Dupo I.C.G.R.R. | 700.00           |
| Dupo T.R.R.A.   | 14,600.00        |
| Hi Line         | 142,000.00       |
| Willows         | 572,936.00       |
| A&S Corridor    | <u>33,756.00</u> |
|                 | \$ 822,272.00    |

| <u>Yards</u>                               | <u>Cost</u>    |
|--|----------------|
| New Yard Plan                              | \$1,764,400.00 |
| Madison 2 Yard Plan                        | 1,179,695.00   |
| Gateway Yard Plan                          | 27,250.00      |
| General Intermodal Terminal TOFC Yard Plan | 319,600.00     |

Distribution by Alternative

|               | <u>2 Yard</u>      | <u>3 Yard Dir.</u> | <u>3 Yard Bi-Dir.</u> |
|---------------|--------------------|--------------------|-----------------------|
| Corridors     | \$ 822,272.00      | \$ 822,272.00      | \$ 822,272.00         |
| Madison Yard  | 1,179,695.00       |                    |                       |
| Gateway Yard  | 27,250.00          | 27,250.00          | 27,250.00             |
| TOFC Terminal | 319,600.00         | 319,600.00         | 319,600.00            |
| New Yard      |                    | 1,764,400.00       | 1,764,400.00          |
| <br>TOTAL     | <br>\$2,348,817.00 | <br>\$2,933,522.00 | <br>\$2,933,522.00    |





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Section I





# MAJOR RAIL YARDS

## KEY MAP

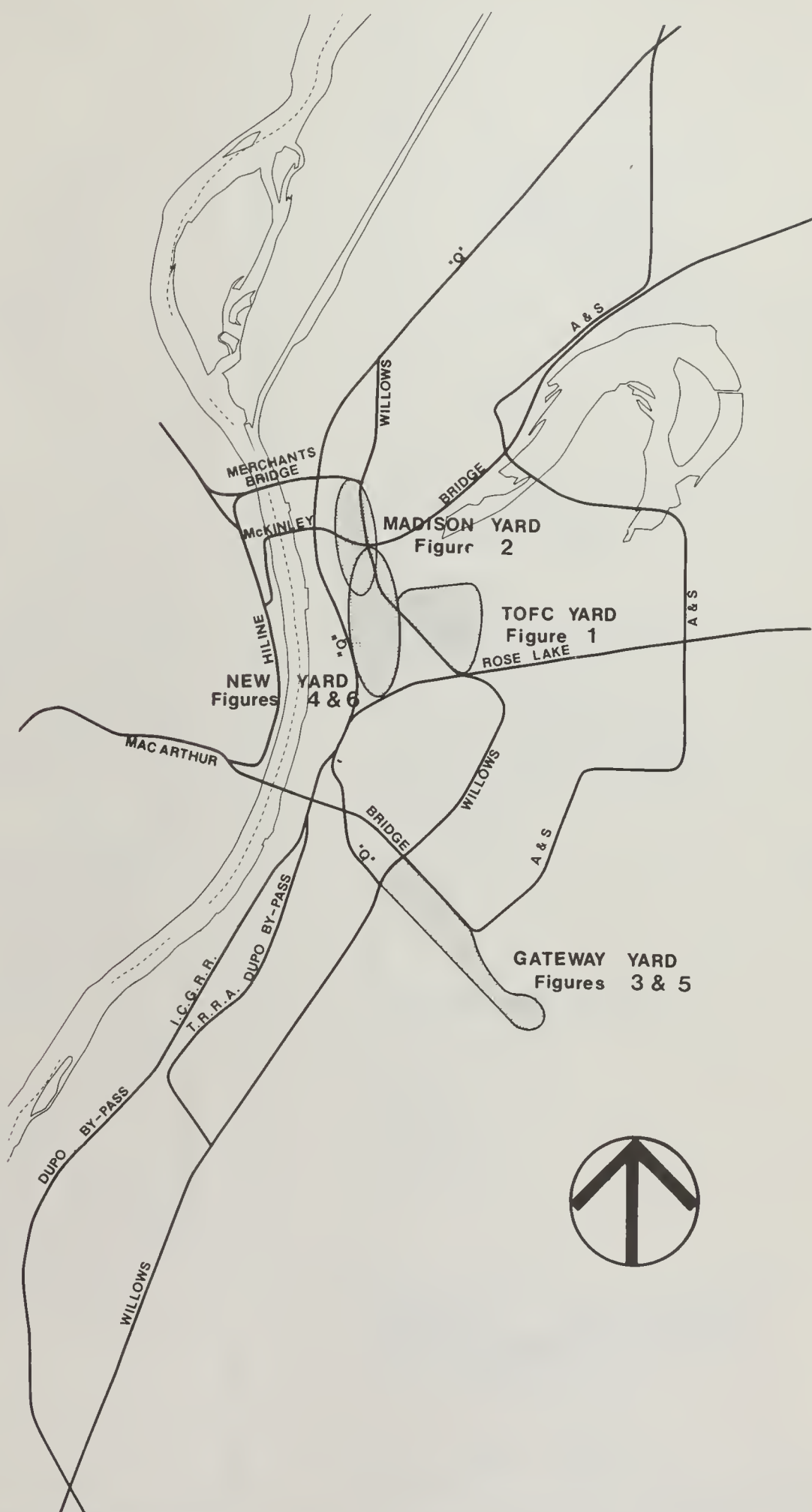
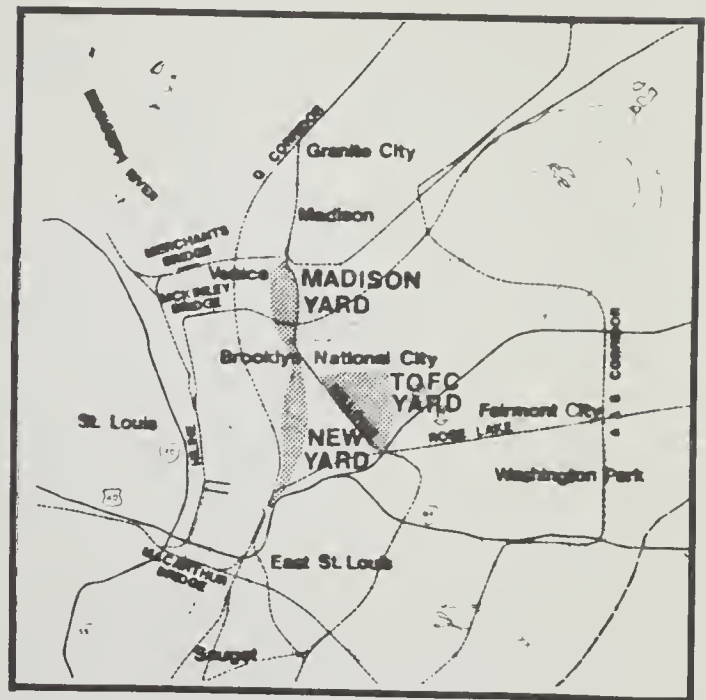




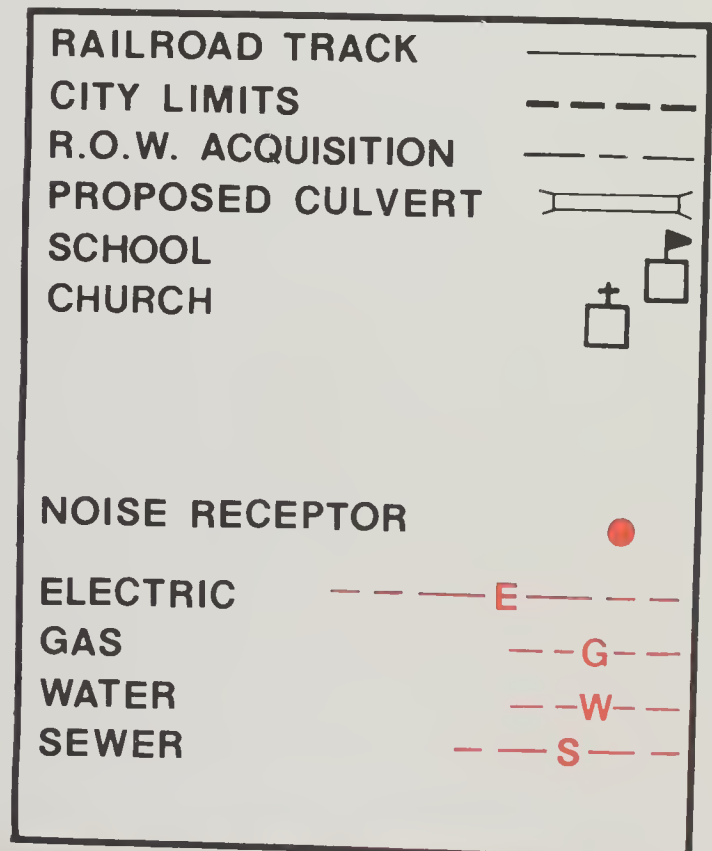


FIGURE 1  
TOFC / COFC YARD  
TWO YARD ALTERNATIVE  
THREE YARD ALTERNATIVES



VICINITY MAP

#### LEGEND

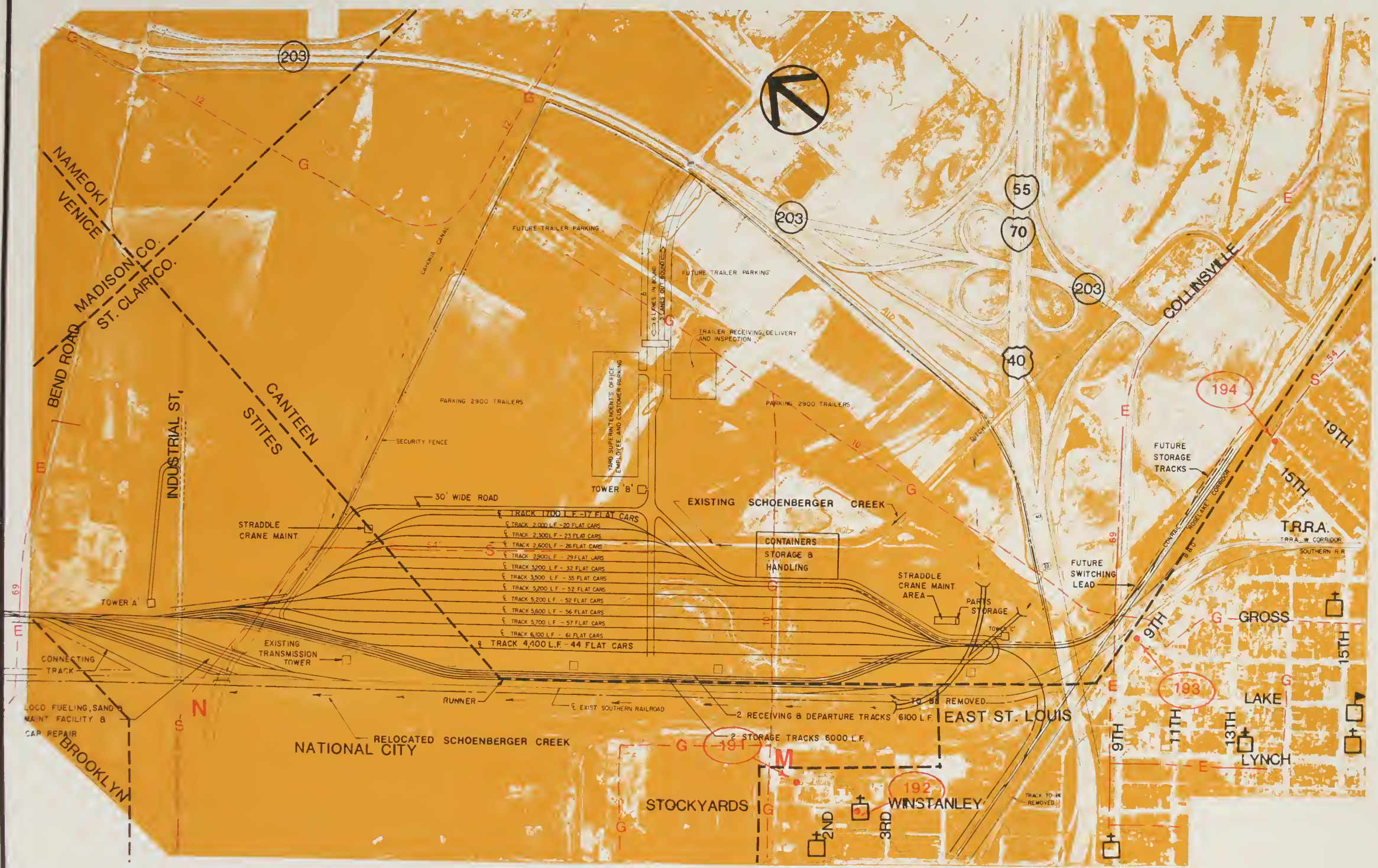


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SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



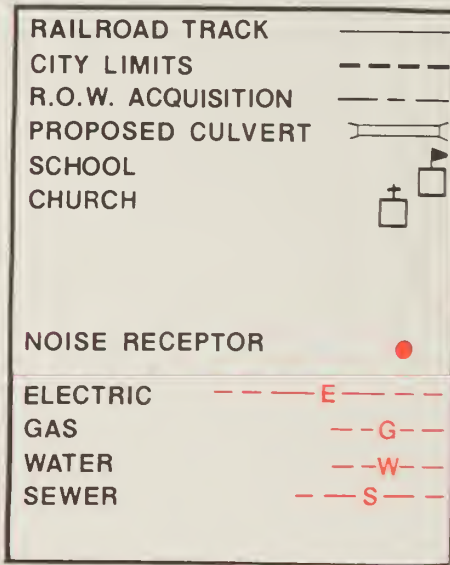


**FIGURE 1**  
**TOFC / COFC YARD**  
**TWO YARD ALTERNATIVE**  
**THREE YARD ALTERNATIVES**



**VICINITY MAP**

**LEGEND**



800 400 0 800

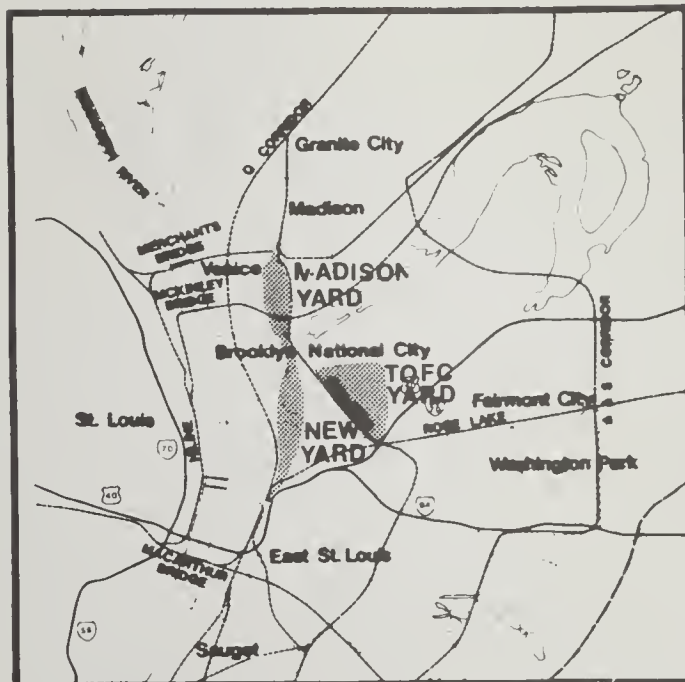
**SCALE IN FEET**



FIGURE 2

# EXPANDED MADISON YARD

TWO YARD ALTERNATIVE



VICINITY MAP

## LEGEND

|                    |                       |
|--------------------|-----------------------|
| RAILROAD TRACK     | — — — — —             |
| PROPOSED PUBLIC RD | — — — — —             |
| CITY LIMITS        | - - - - -             |
| EXISTING R.O.W.    | — — — — —             |
| R.O.W. ACQUISITION | — — — — —             |
| SCHOOL             |                       |
| CHURCH             |                       |
| MITIGATION ZONE    |                       |
| OPEN BUFFER        |                       |
| NOISE RECEPTOR     |                       |
| ELECTRIC           | - - - - - E - - - - - |
| GAS                | - - - - - G - - - - - |
| WATER              | - - - - - W - - - - - |
| SEWER              | - - - - - S - - - - - |

400 200 0 400



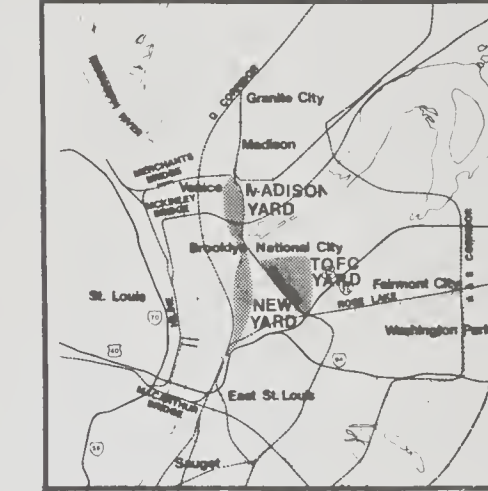
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT





FIGURE 2  
EXPANDED MADISON YARD  
TWO YARD ALTERNATIVE



VICINITY MAP

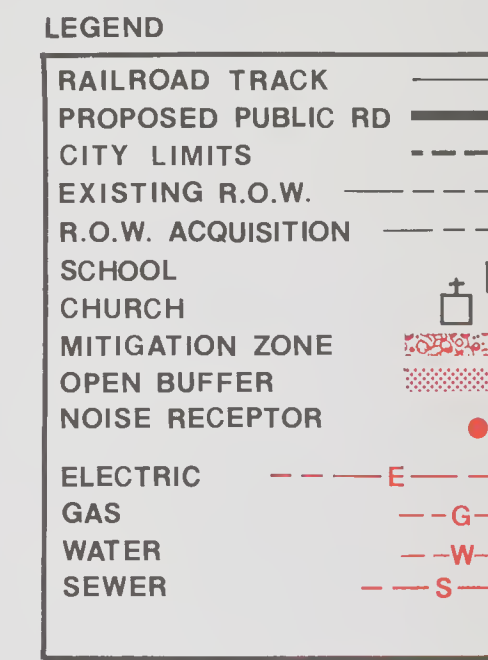




FIGURE 3

# EXPANDED GATEWAY YARD

TWO YARD ALTERNATIVE

THREE YARD DIRECTIONAL ALTERNATIVE



VICINITY MAP

## LEGEND

|                    |                       |
|--------------------|-----------------------|
| RAILROAD TRACK     | — — — — —             |
| PROPOSED PUBLIC RD | — — — — —             |
| CITY LIMITS        | - - - - -             |
| EXISTING R.O.W.    | — — — — —             |
| R.O.W. ACQUISITION | — — — — —             |
| SCHOOL             |                       |
| CHURCH             |                       |
| MITIGATION ZONE    |                       |
| OPEN BUFFER        |                       |
| NOISE RECEPTOR     |                       |
| ELECTRIC           | — — — — — E — — — — — |
| GAS                | — — — — — G — — — — — |
| WATER              | — — — — — W — — — — — |
| SEWER              | — — — — — S — — — — — |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT





FIGURE 3  
 EXPANDED GATEWAY YARD  
 TWO YARD ALTERNATIVE  
 THREE YARD DIRECTIONAL ALTERNATIVE



VICINITY MAP

LEGEND

- RAILROAD TRACK
- PROPOSED PUBLIC RD
- CITY LIMITS
- EXISTING R.O.W.
- R.O.W. ACQUISITION
- SCHOOL
- CHURCH
- MITIGATION ZONE
- OPEN BUFFER
- NOISE RECEPTOR
- ELECTRIC
- GAS
- WATER
- SEWER

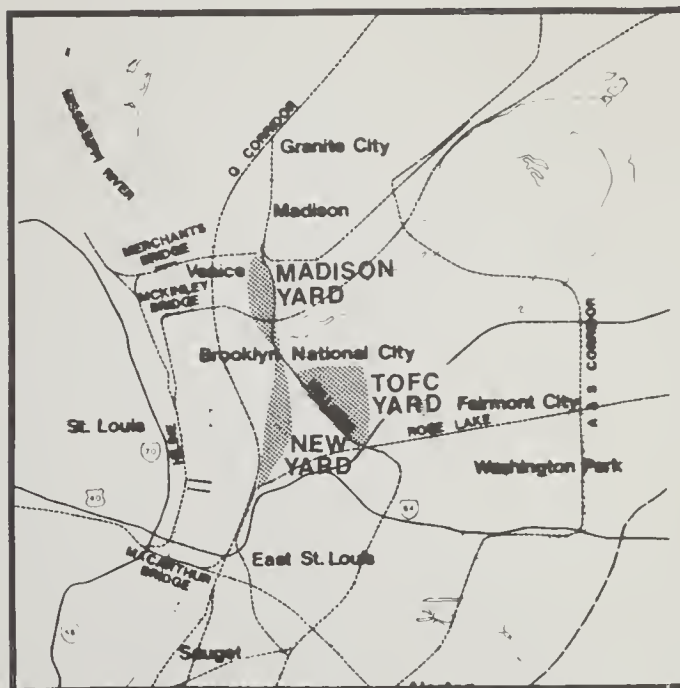




FIGURE 4

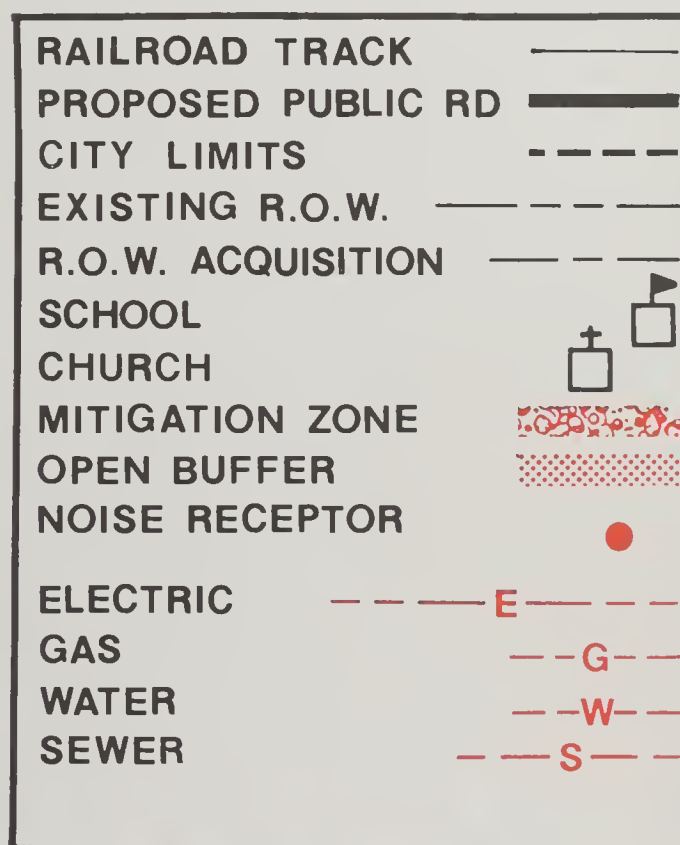
# NEW YARD

THREE YARD DIRECTIONAL ALTERNATIVE



VICINITY MAP

## LEGEND



400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



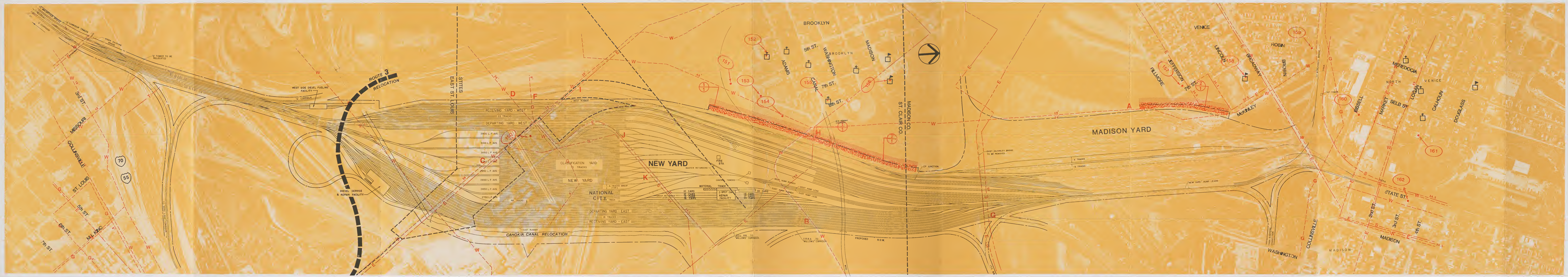
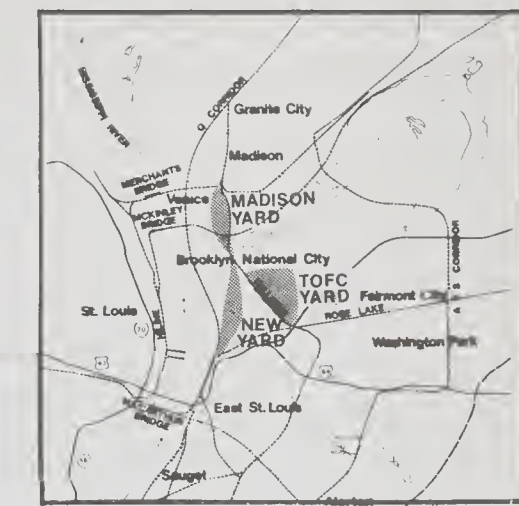


FIGURE 4

NEW YARD

THREE YARD DIRECTIONAL ALTERNATIVE



VICINITY MAP

### LEGEND

RAILROAD TRACK

PROPOSED PUBLIC RD

CITY LIMITS

EXISTING R.O.W.

R.O.W. ACQUISITION

SCHOOL CHURCH

MITIGATION ZONE

OPEN BUFFER

NOISE RECEPTOR

ELECTRIC

GAS

WATER

SEWER



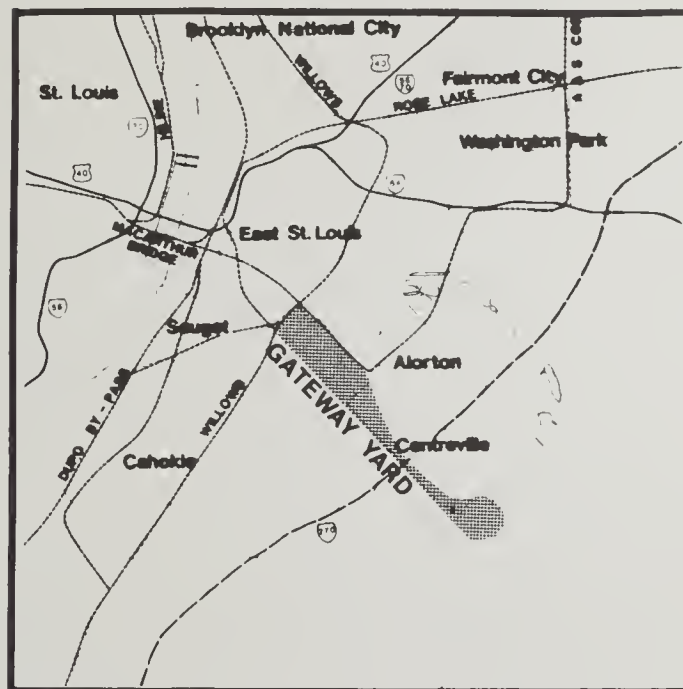
ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



FIGURE 5

# EXPANDED GATEWAY YARD

THREE YARD BIDIRECTIONAL ALTERNATIVE



VICINITY MAP

## LEGEND

|                    |                   |
|--------------------|-------------------|
| RAILROAD TRACK     | —                 |
| PROPOSED PUBLIC RD | —                 |
| CITY LIMITS        | - - - -           |
| EXISTING R.O.W.    | —                 |
| R.O.W. ACQUISITION | - - - -           |
| SCHOOL             | +                 |
| CHURCH             | ☐                 |
| MITIGATION ZONE    | •••••             |
| OPEN BUFFER        | •••••             |
| NOISE RECEPTOR     | ●                 |
| ELECTRIC           | - - - - E - - - - |
| GAS                | - - - - G - - - - |
| WATER              | - - - - W - - - - |
| SEWER              | - - - - S - - - - |

400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT



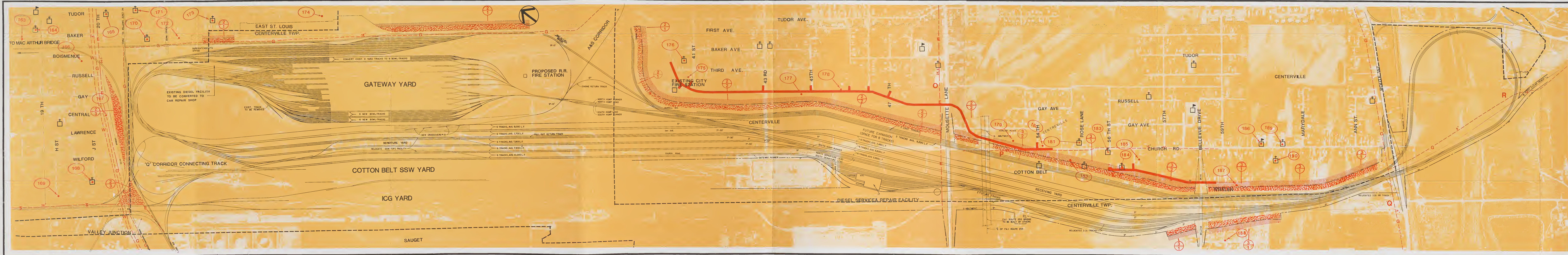
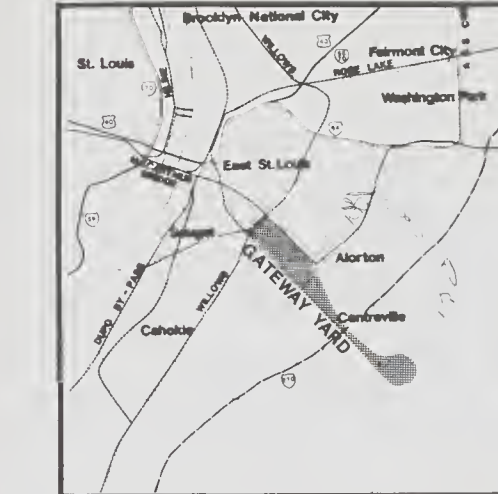


FIGURE 5  
EXPANDED GATEWAY YARD  
THREE YARD BIDIRECTIONAL ALTERNATIVE



VICINITY MAP

LEGEND

|                    |               |
|--------------------|---------------|
| RAILROAD TRACK     | —             |
| PROPOSED PUBLIC RD | —             |
| CITY LIMITS        | - - -         |
| EXISTING R.O.W.    | - - -         |
| R.O.W. ACQUISITION | - - -         |
| SCHOOL             | +             |
| CHURCH             | +             |
| MITIGATION ZONE    | ■             |
| OPEN BUFFER        | ■             |
| NOISE RECEPTOR     | ●             |
| ELECTRIC           | - - - E - - - |
| GAS                | - - - G - - - |
| WATER              | - - - W - - - |
| SEWER              | - - - S - - - |





FIGURE 6

# NEW YARD

THREE YARD BIDIRECTIONAL ALTERNATIVE



VICINITY MAP

## LEGEND

|                    |                       |
|--------------------|-----------------------|
| RAILROAD TRACK     | — — — — —             |
| PROPOSED PUBLIC RD | — — — — —             |
| CITY LIMITS        | - - - - -             |
| EXISTING R.O.W.    | — — — — —             |
| R.O.W. ACQUISITION | - - - - -             |
| SCHOOL             |                       |
| CHURCH             |                       |
| MITIGATION ZONE    |                       |
| OPEN BUFFER        |                       |
| NOISE RECEPTOR     |                       |
| ELECTRIC           | - - - - - E - - - - - |
| GAS                | - - - - - G - - - - - |
| WATER              | - - - - - W - - - - - |
| SEWER              | - - - - - S - - - - - |

400 200 0 400

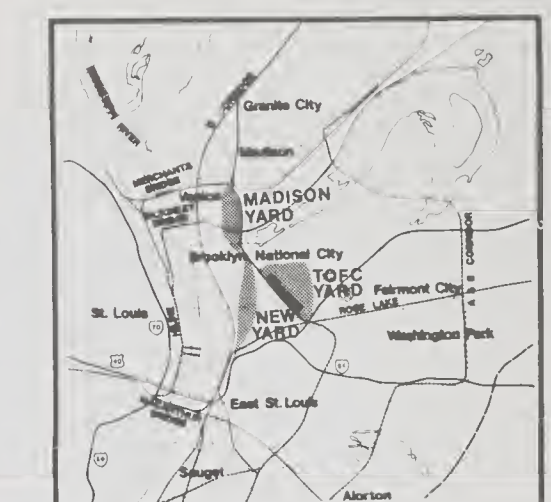
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

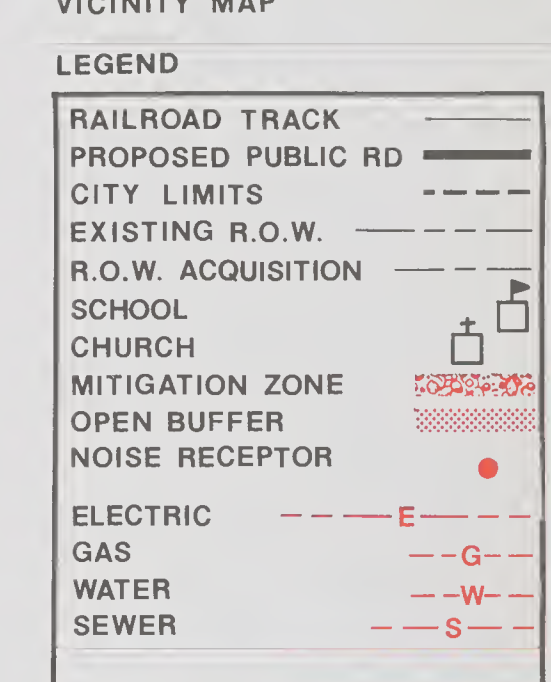




FIGURE 6  
NEW YARD  
THREE YARD BIDIRECTIONAL ALTERNATIVE



VICINITY MAP





## Section II

Section II



# Q CORRIDOR

## KEY MAP

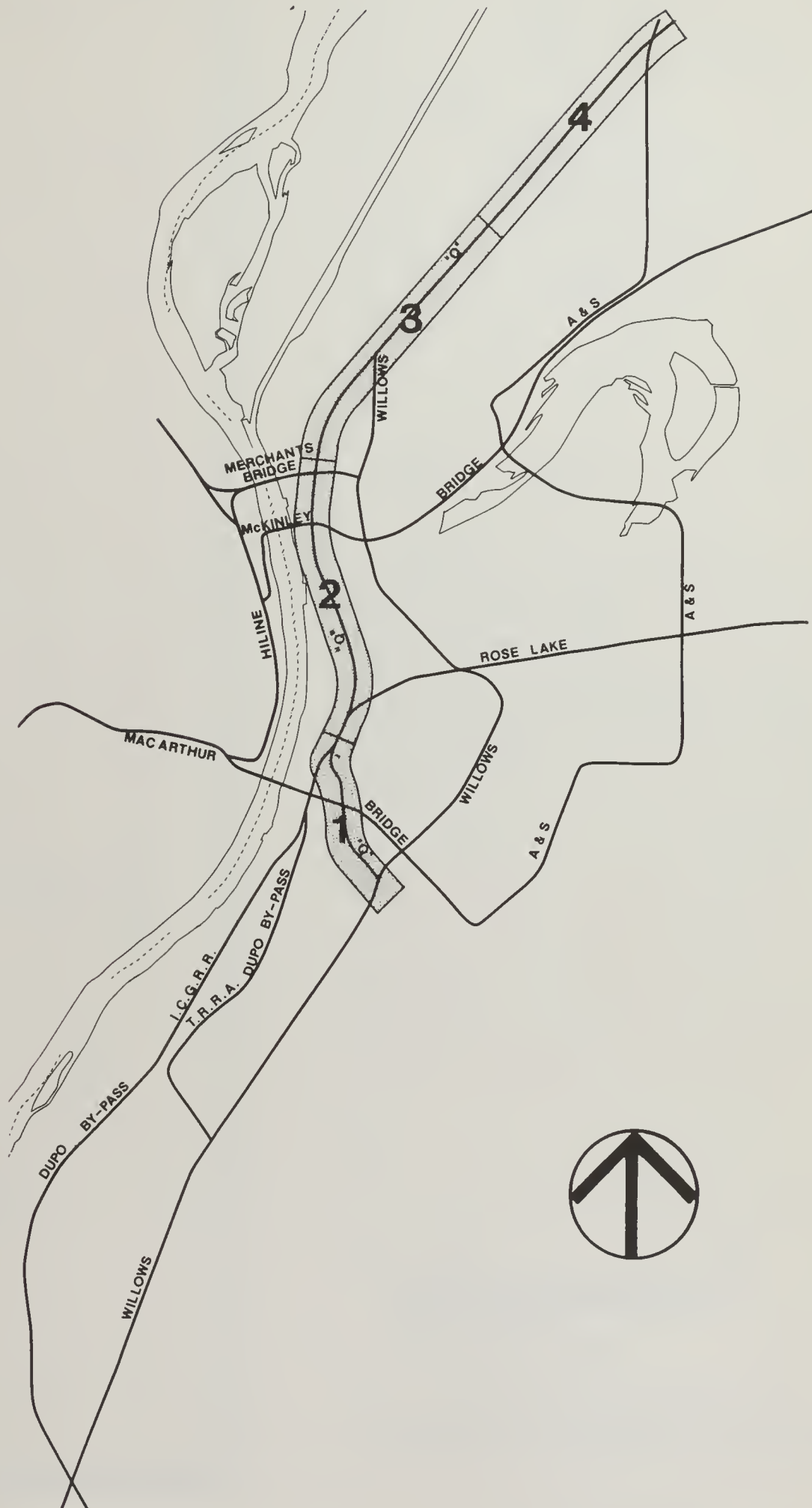
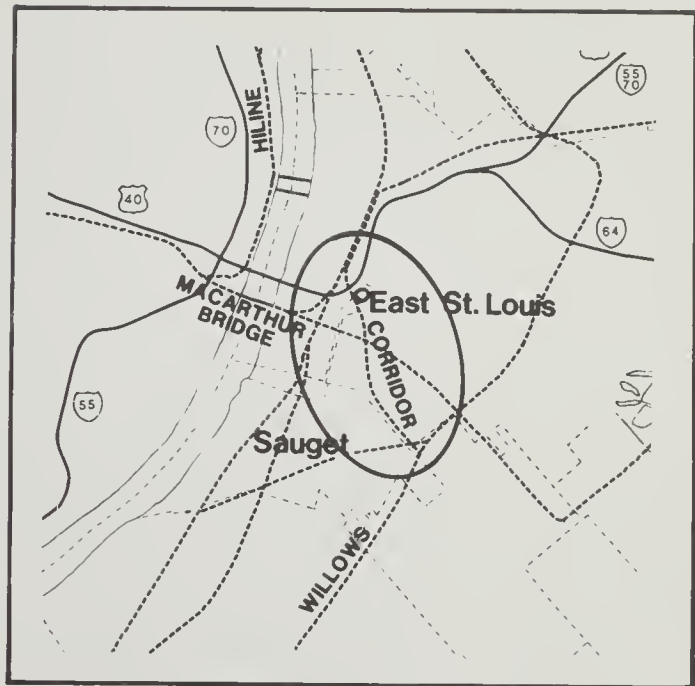




FIGURE 1 OF 4

# Q CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○      |
| SCHOOL   | □         |
| CHURCH   | □+        |
| ELECTRIC   | ———       |
| GAS LINE   | - - - - - |
| WATER  | ———       |
| SEWER  | ———       |
| TELEPHONE  | ———       |

400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

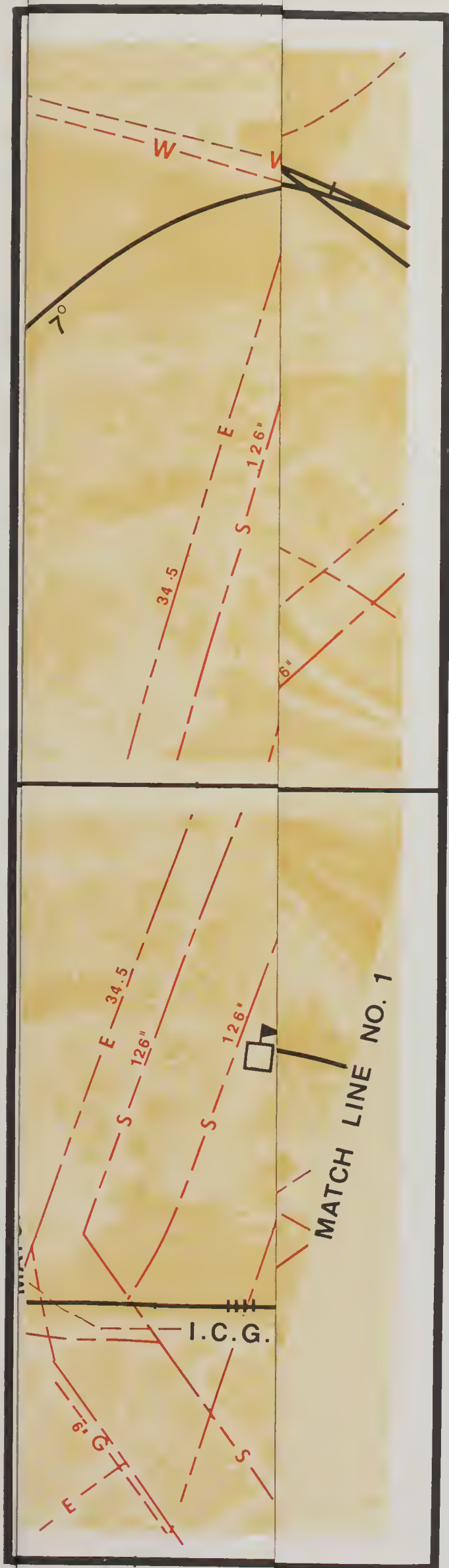




FIGURE 1 OF 4

# Q CORRIDOR



VICINITY MAP

## LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | MP 1  |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | —     |
| GAS LINE   | —     |
| WATER  | —     |
| SEWER  | —     |
| TELEPHONE  | —     |

400 200 0 400

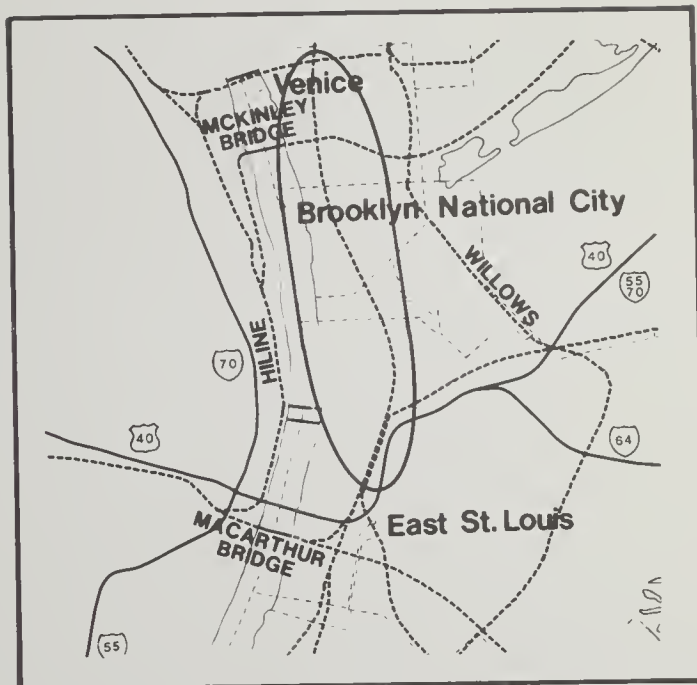
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



# FIGURE 2 OF 4

## Q CORRIDOR



VICINITY MAP

### LEGEND

|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

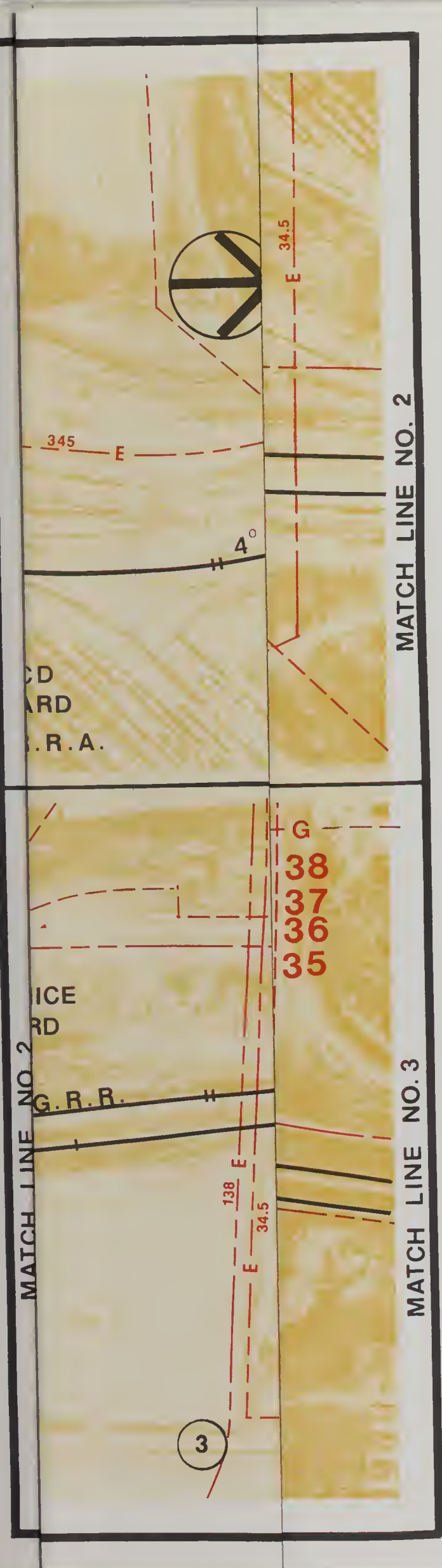
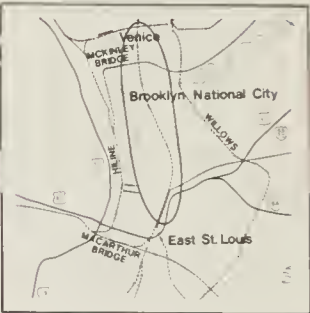




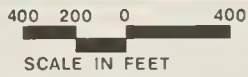
FIGURE 2 OF 4  
Q CORRIDOR



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | —E—   |
| GAS LINE   | —G—   |
| WATER  | —W—   |
| SEWER  | —S—   |
| TELEPHONE  | —T—   |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

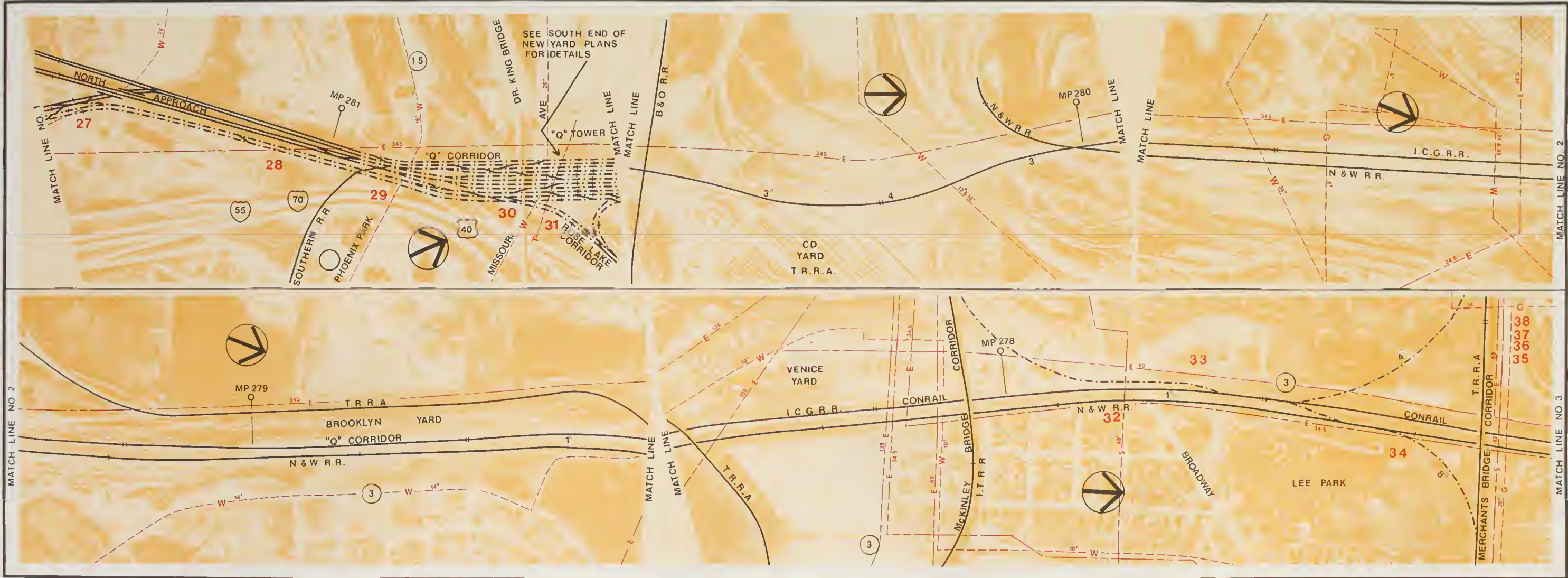
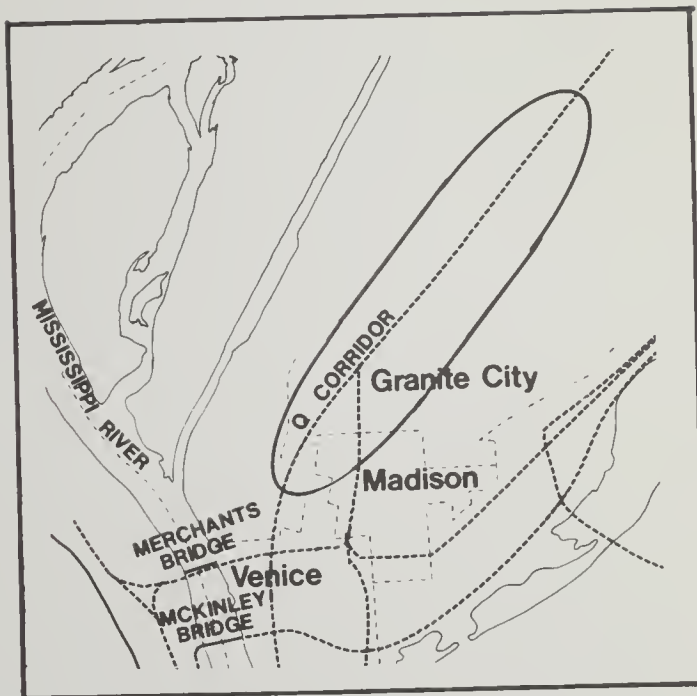


FIGURE 3 OF 4

# Q CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—+—     |
| MILEPOST   | —○—       |
| SCHOOL   | —□—       |
| CHURCH   | —+—       |
| ELECTRIC   | — — — — — |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | — — — — — |
| TELEPHONE  | - - - - - |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

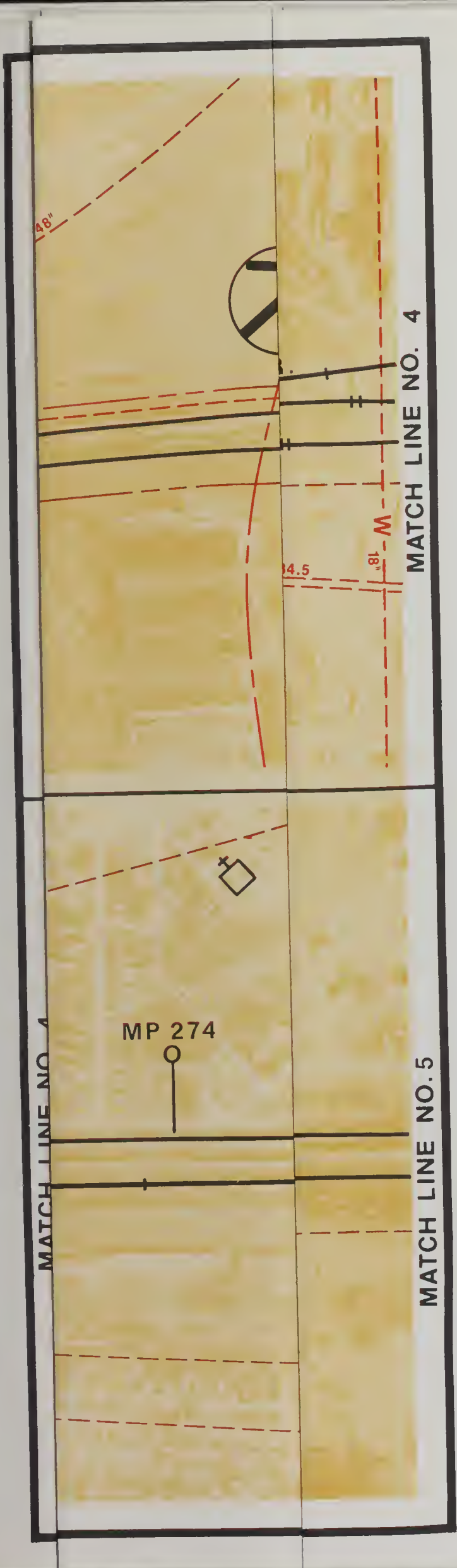




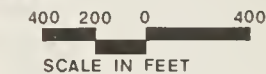
FIGURE 3 OF 4  
Q CORRIDOR



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | —     |
| GAS LINE   | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

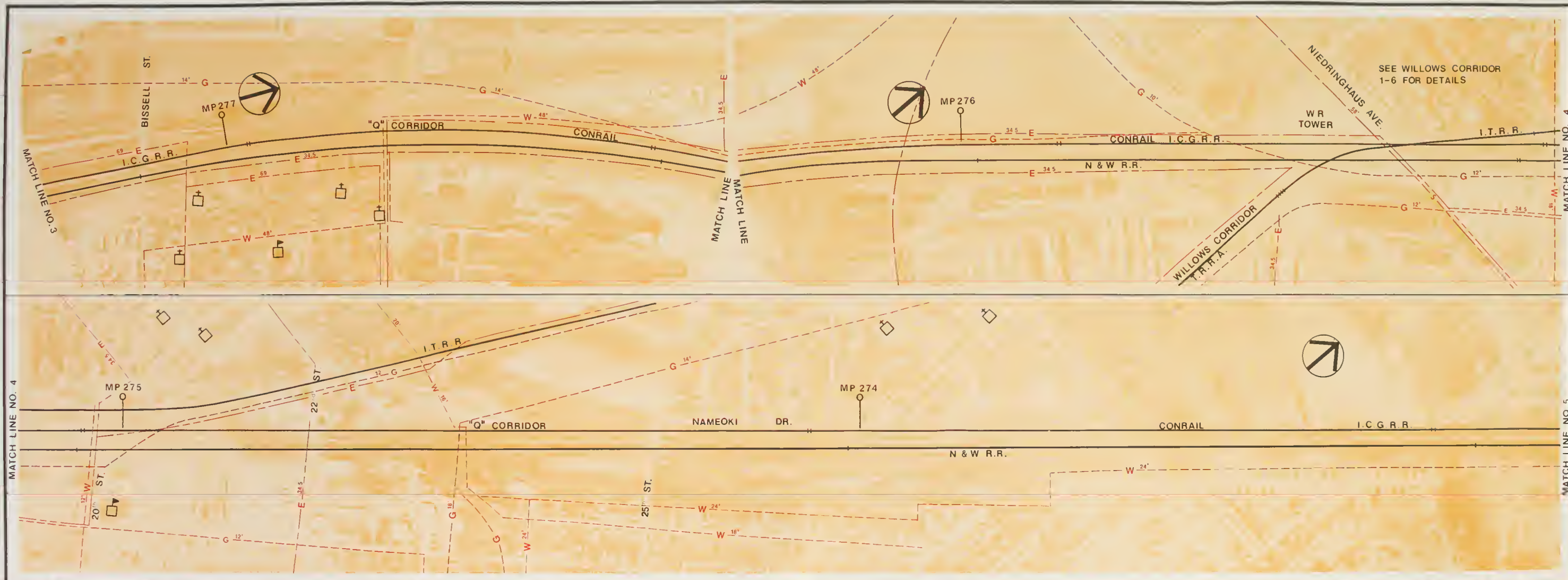
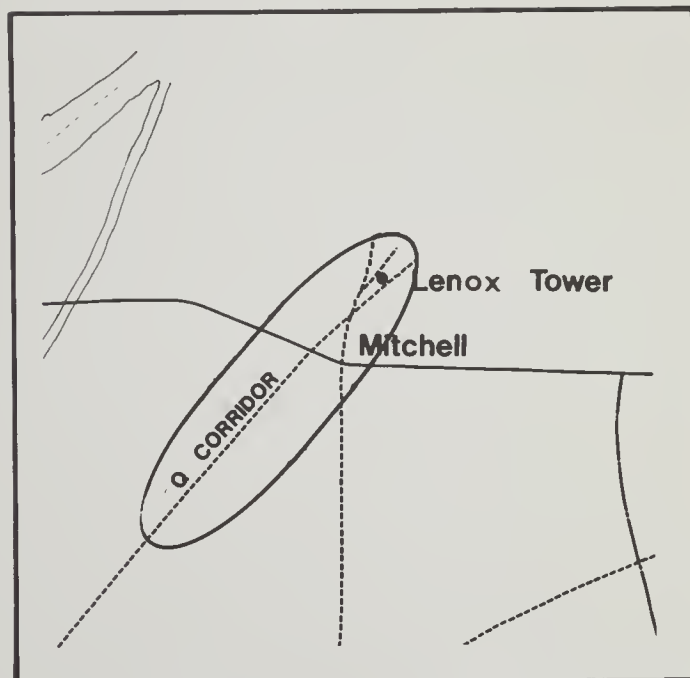




FIGURE 4 OF 4

# Q CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○      |
| SCHOOL   | □         |
| CHURCH   | □         |
| ELECTRIC   | ———       |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | ———       |
| TELEPHONE  | - - - - - |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

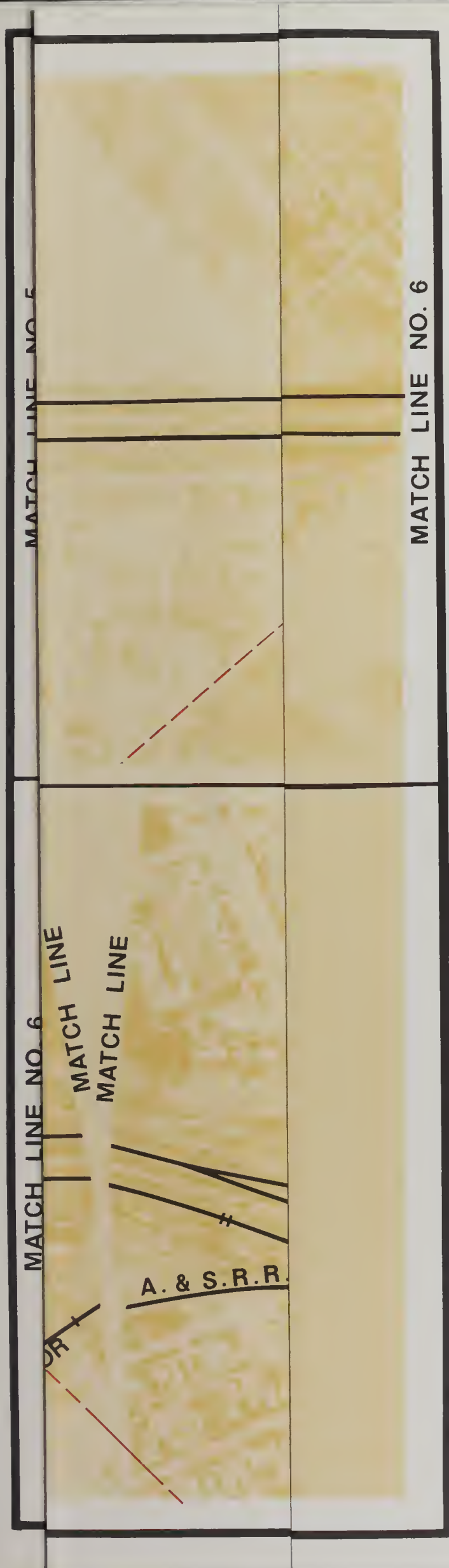
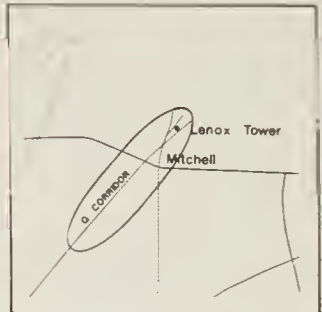


FIGURE 4 OF 4

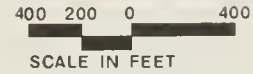
Q CORRIDOR



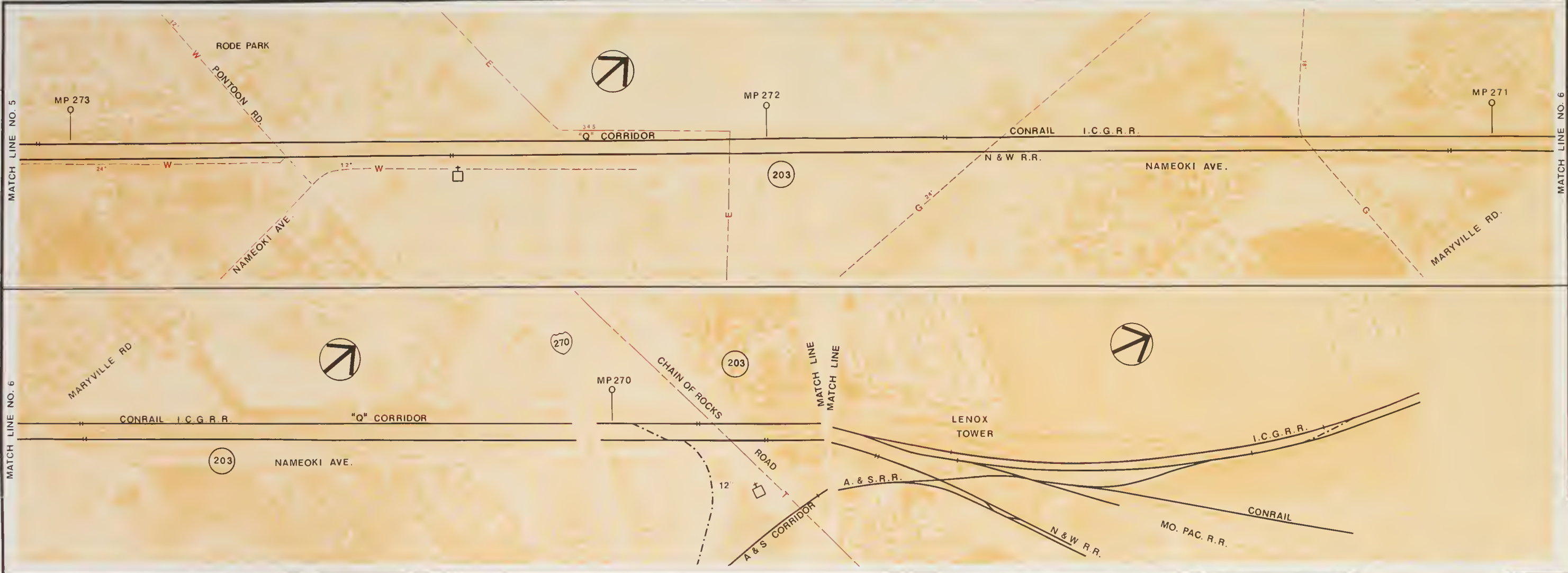
VICINITY MAP

LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | ————      |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | ○         |
| SCHOOL   | □         |
| CHURCH   | ⊕         |
| ELECTRIC   | — · — · — |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



### Section III





# A & S CORRIDOR

## KEY MAP

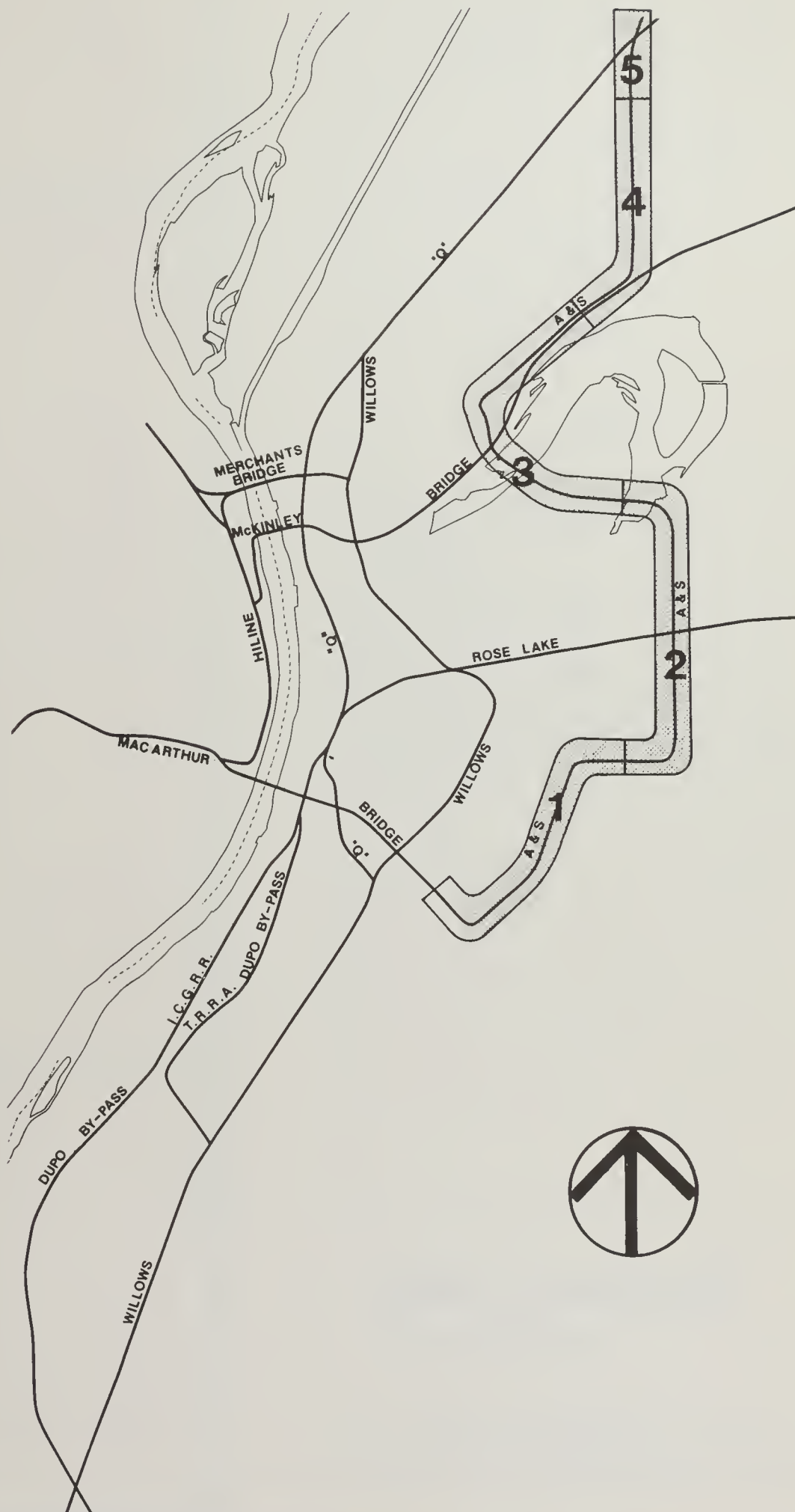
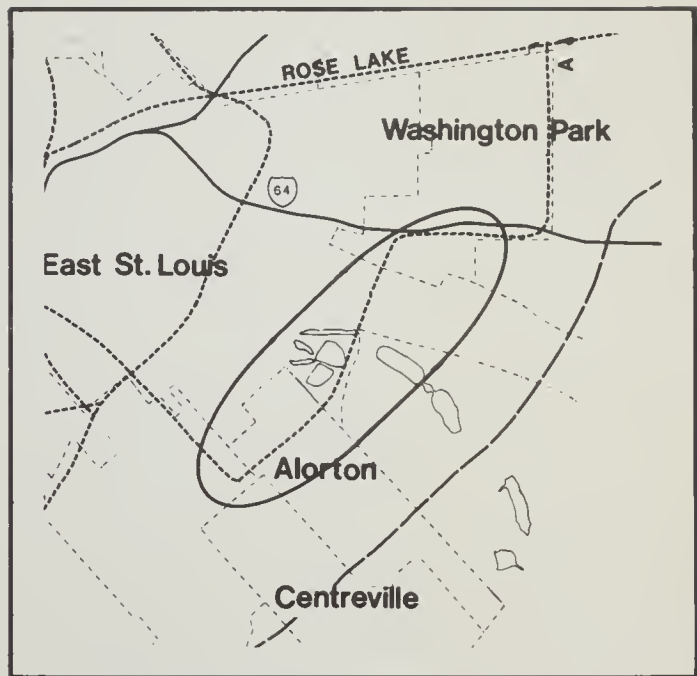






FIGURE 1 OF 5

# A & S CORRIDOR



## VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—       |
| MILEPOST   | —○—       |
| SCHOOL   | □         |
| CHURCH   | □         |
| ELECTRIC   | — — — — — |
| GAS LINE   | — — — — — |
| WATER  | — — — — — |
| SEWER  | — — — — — |
| TELEPHONE  | — — — — — |

400 200 0 400



SCALE IN FEET

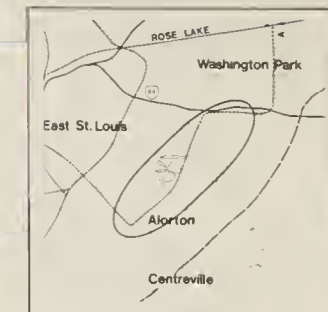
ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT





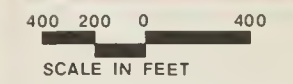
FIGURE 1 OF 5

A & S  
CORRIDOR



VICINITY MAP  
LEGEND

|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |

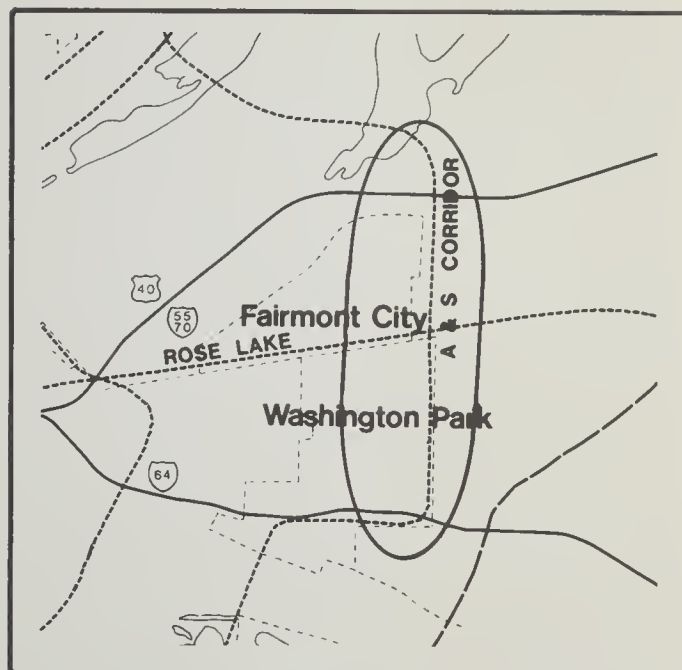


ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE KNIGHT



FIGURE 2 OF 5

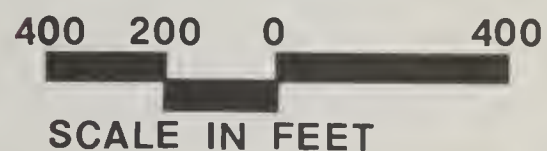
# A & S CORRIDOR



## VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | —————○    |
| SCHOOL   | □         |
| CHURCH   | □+        |
| ELECTRIC   | —————     |
| GAS  | - - - - - |
| WATER  | - - - - - |
| SEWER  | —————     |
| TELEPHONE  | - - - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ ENVIRODYNE/ KNIGHT

MATCH LINE NO. 2

MATCH LINE NO. 3

LINE NO. 4

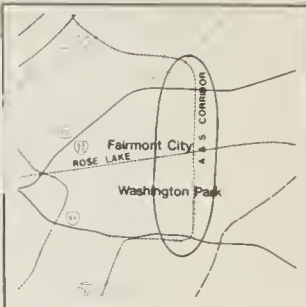
S CORRIDOR

G



FIGURE 2 OF 5

A & S  
CORRIDOR



VICINITY MAP  
LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | —     |
| GAS  | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |

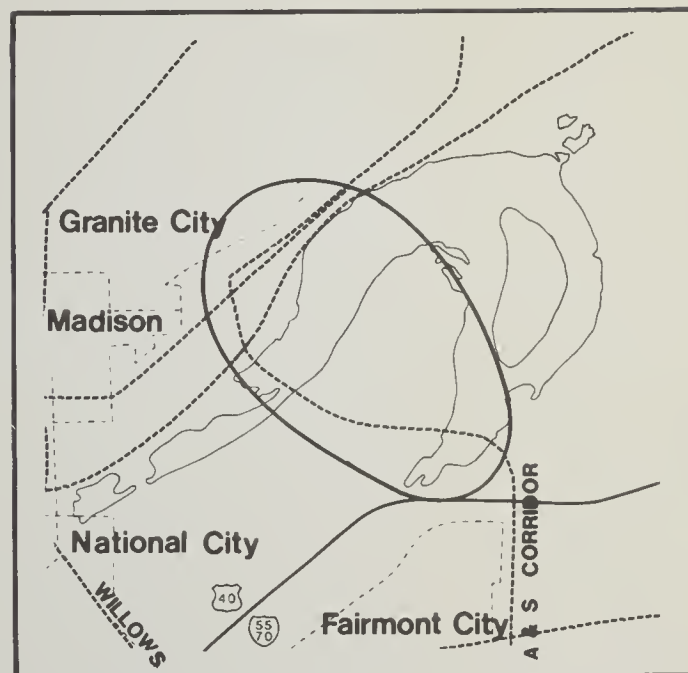


ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



FIGURE 3 OF 5

# A & S CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○———   |
| SCHOOL   | □         |
| CHURCH   | □         |
| RAIL TO BE RETIRED                                 | ~~~~~     |
| ELECTRIC   | ———       |
| GAS LINE   | ———       |
| WATER  | ———       |
| SEWER  | ———       |
| TELEPHONE  | ———       |

400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

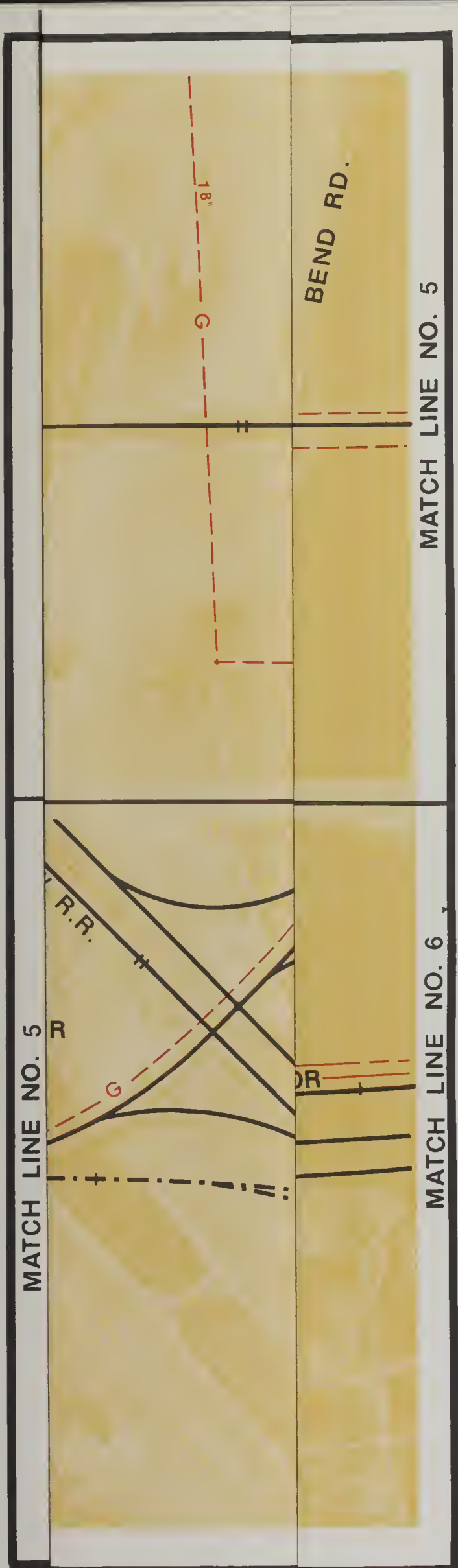




FIGURE 3 OF 5

A & S  
CORRIDOR



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| RAIL TO BE RETIRED                                 | ~~~~~ |
| ELECTRIC   | ---   |
| GAS LINE   | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |



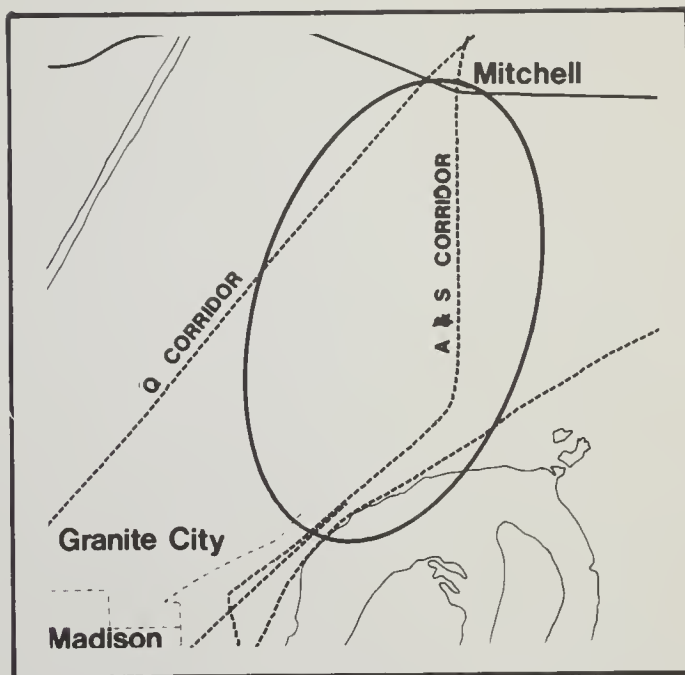
ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT





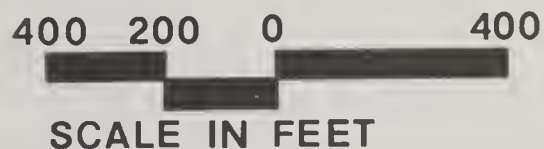
FIGURE 4 OF 5

# A & S CORRIDOR



## VICINITY MAP LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○      |
| SCHOOL   | □         |
| CHURCH   | □+        |
| ELECTRIC   | —————     |
| GAS LINE   | - - - - - |
| WATER  | —————     |
| SEWER  | - - - - - |
| TELEPHONE  | —————     |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



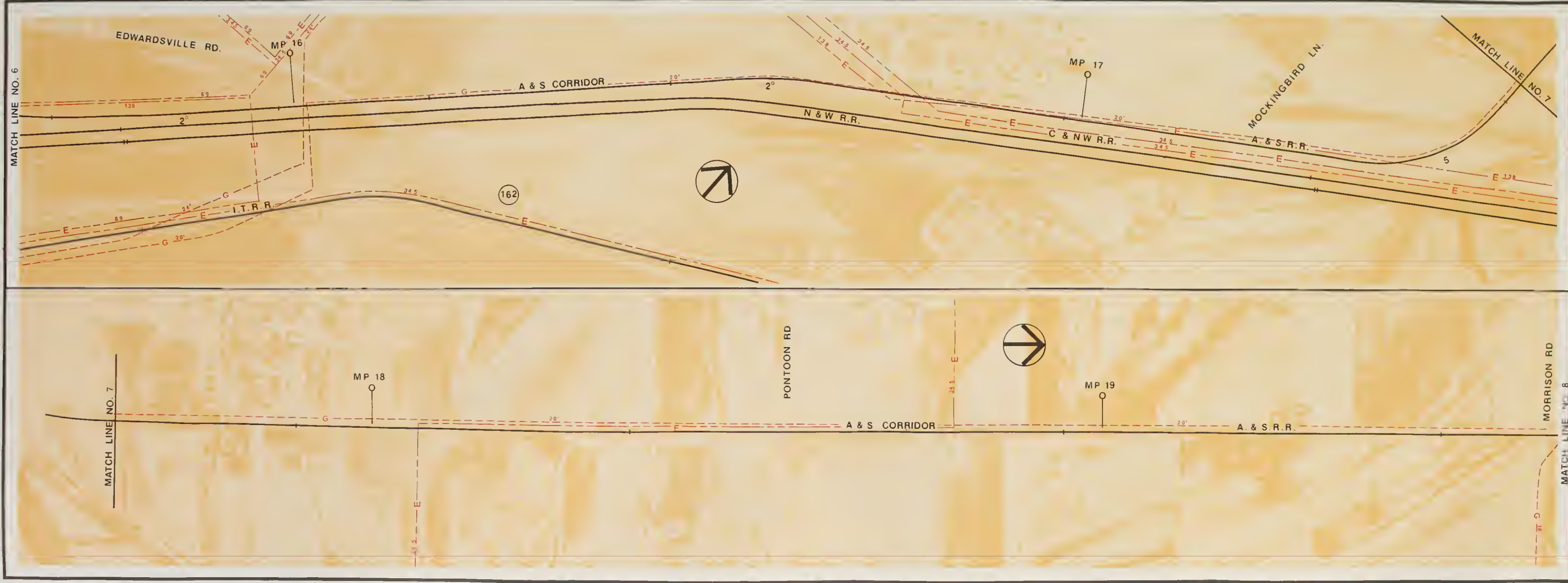
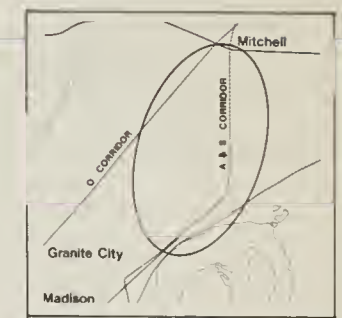


FIGURE 4 OF 5

# A & S CORRIDOR



## VICINITY MAP LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | +     |
| ELECTRIC   | —     |
| GAS LINE   | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |



Section VI

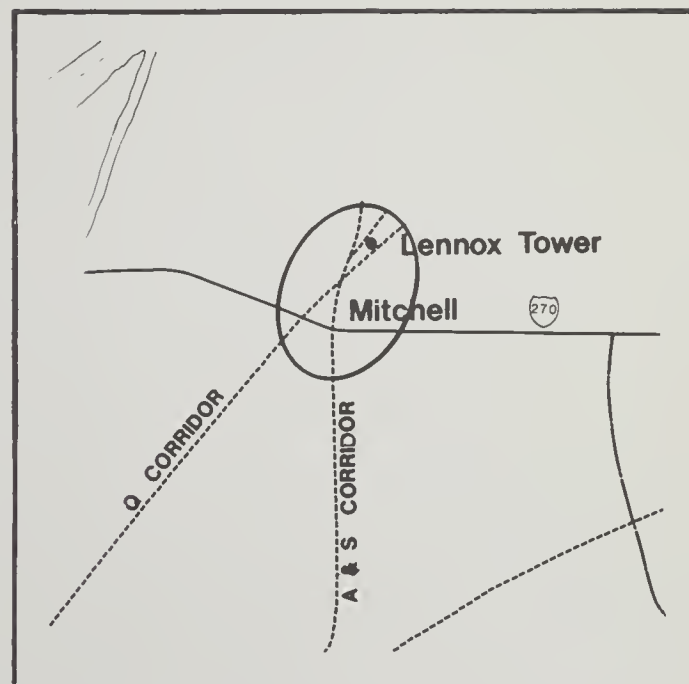
Section VII

Section VIII

Section IV

FIGURE 5 OF 5

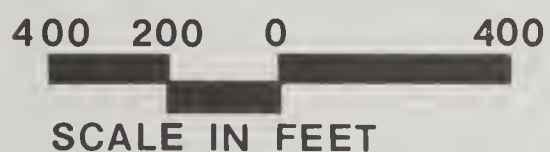
# A & S CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—       |
| MILEPOST   | —○—       |
| SCHOOL   | —□—       |
| CHURCH   | —+—       |
| ELECTRIC   | — — — — — |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

MATCH LINE NO.8

MP 20

18"

MATCH LINE NO.9

A & S CORRIDOR  
A. & S. R. R.

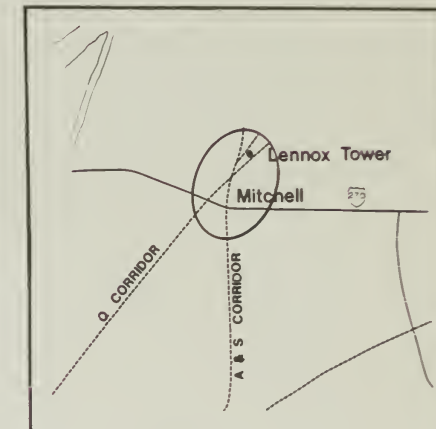
CHAIN OF ROCKS ROAD





FIGURE 5 OF 5

# A & S CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | ————      |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | ○         |
| SCHOOL   | □         |
| CHURCH   | +         |
| ELECTRIC   | — — — — — |
| GAS LINE   | — — — — — |
| WATER  | — — — — — |
| SEWER  | — — — — — |
| TELEPHONE  | — — — — — |

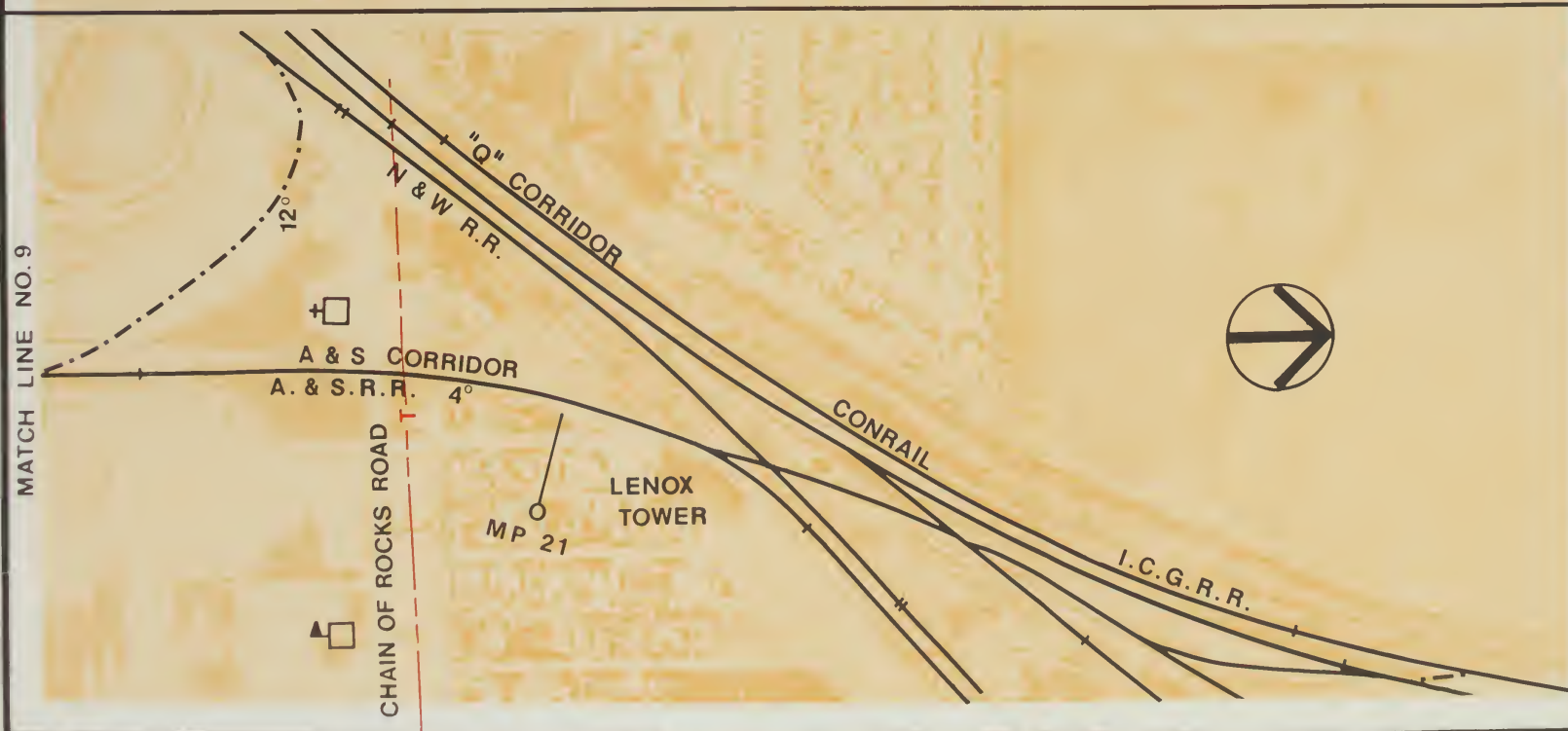
400 200 0 400  
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

MATCH LINE NO. 8

MATCH LINE NO. 9

MATCH LINE NO. 9



MATCH LINE NO. 9

## Section IV

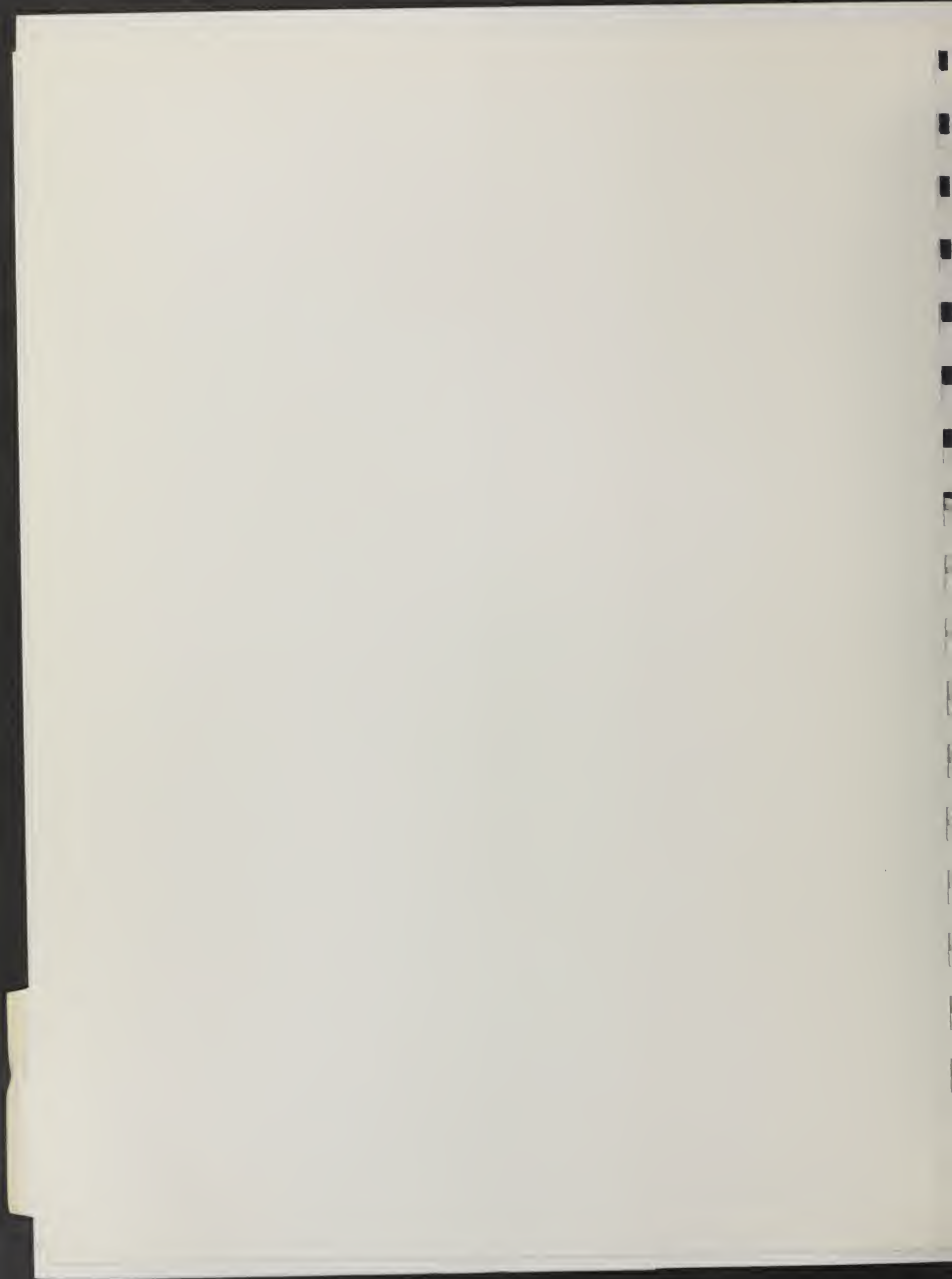
Section IV

Section VII

Section VIII

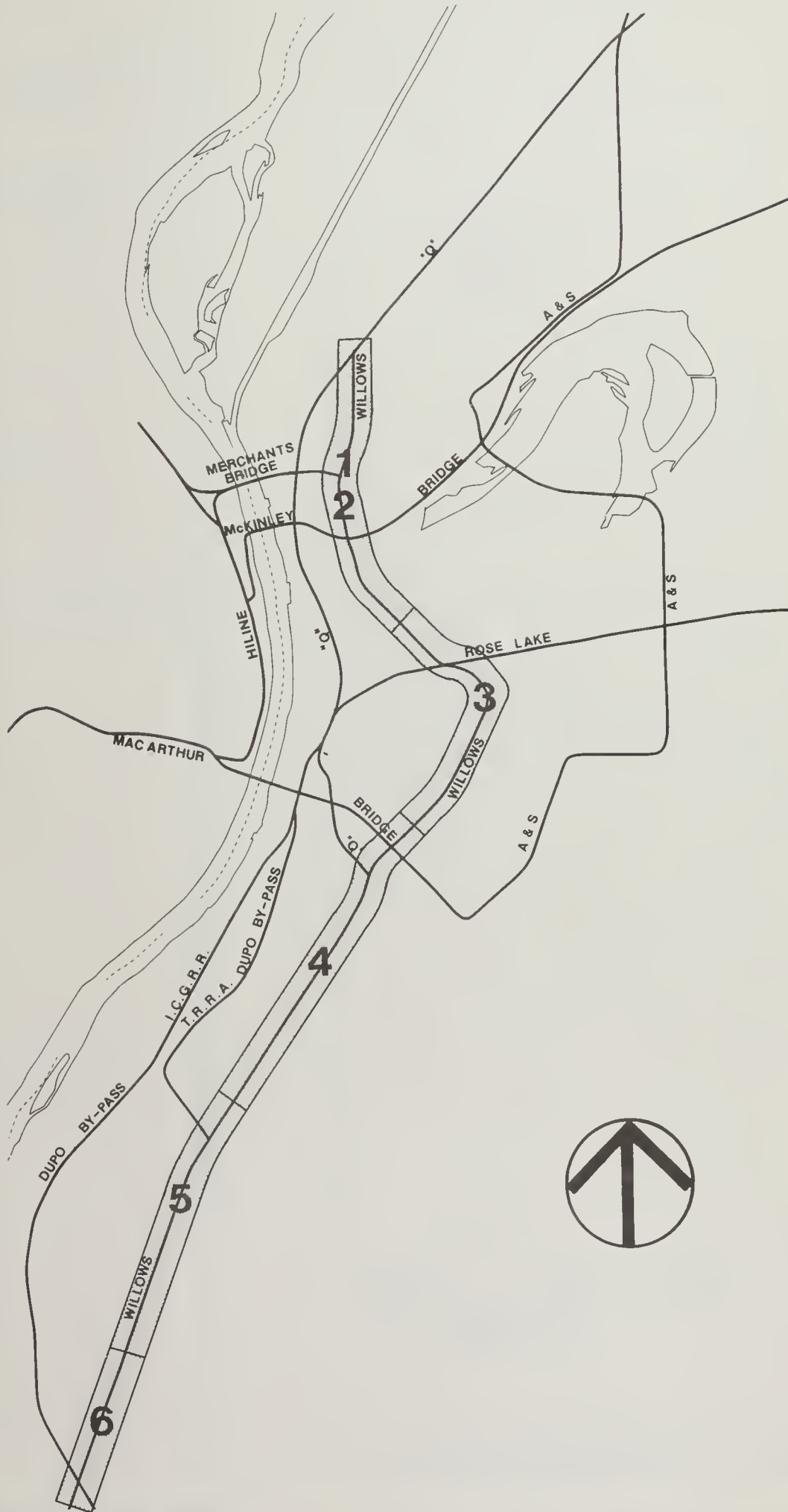
Section IV



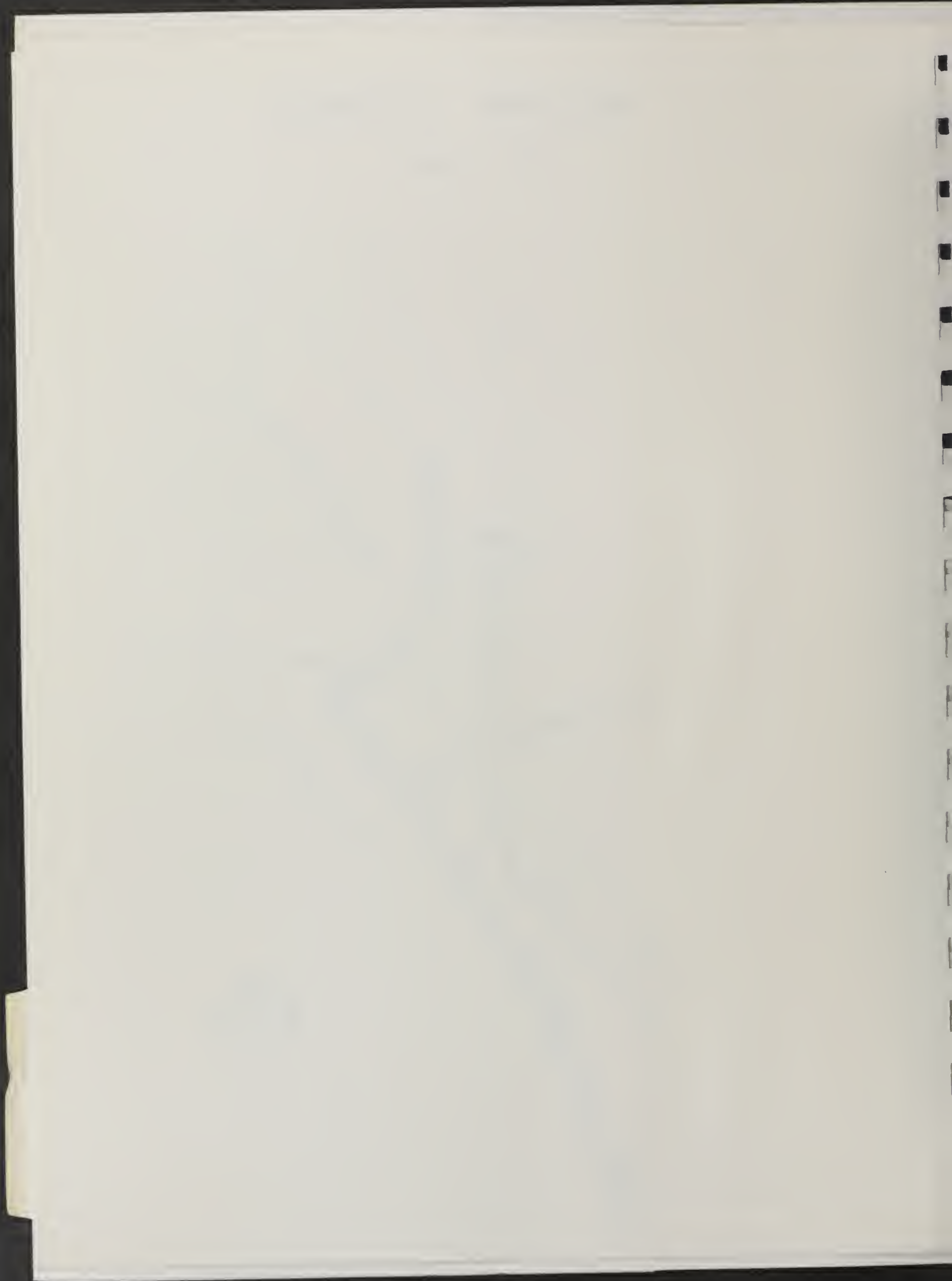


# WILLOWS CORRIDOR

## KEY MAP







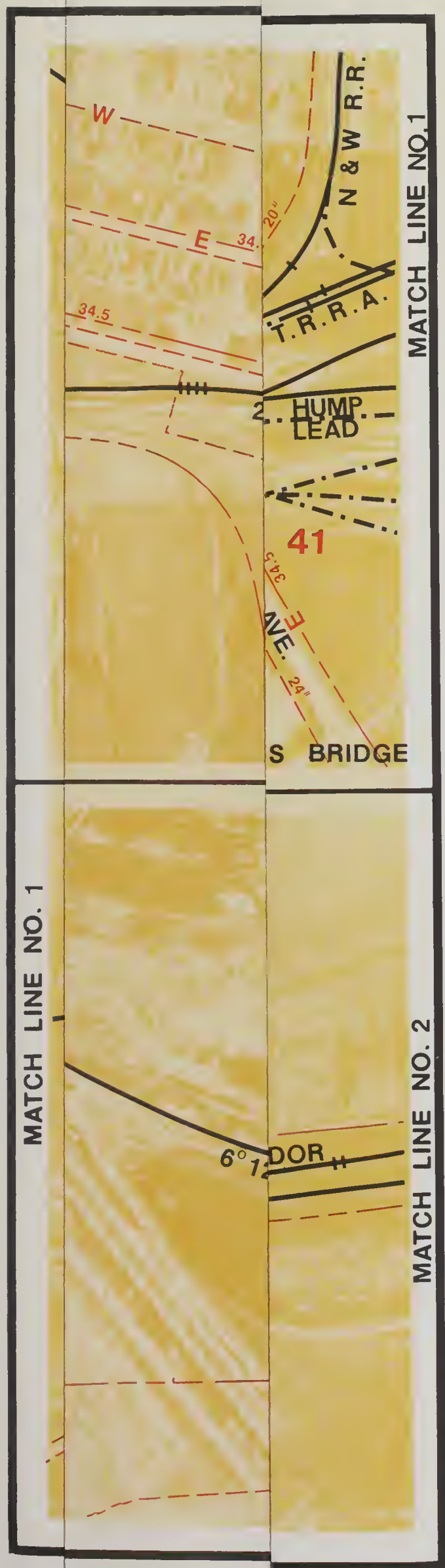
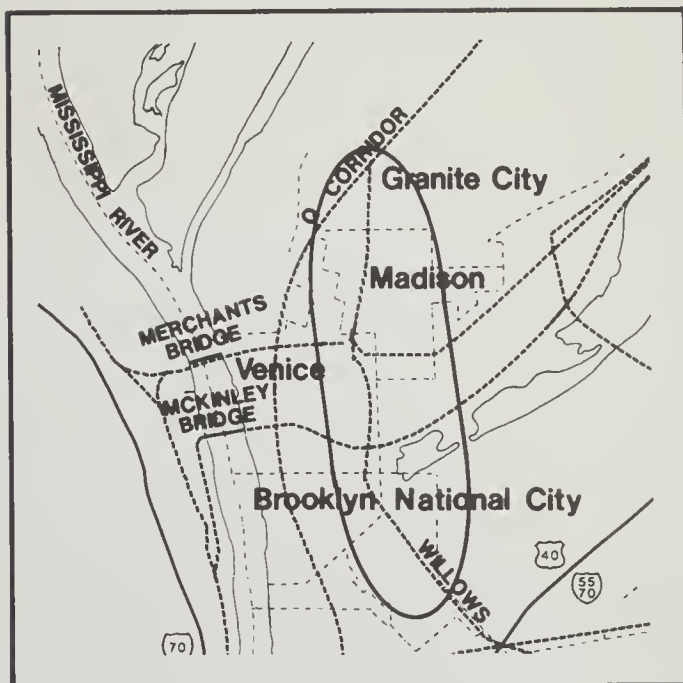


FIGURE 1 OF 6

# WILLOWS CORRIDOR

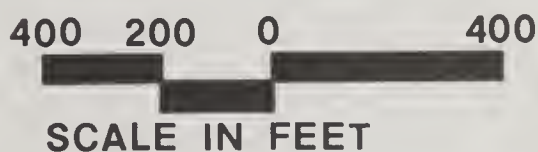
2  
YARD  
ALTERNATIVE



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—       |
| MILEPOST   | —○—       |
| SCHOOL   | —□—       |
| CHURCH   | —+—       |
| ELECTRIC   | — — — — — |
| GAS LINE   | — — — — — |
| WATER  | — — — — — |
| SEWER  | — — — — — |
| TELEPHONE  | — — — — — |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

Section VII

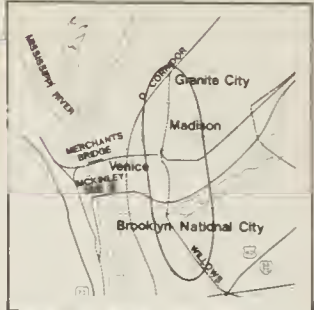
Section VII

Section VIII



FIGURE 1 OF 6

WILLOWS CORRIDOR  
2 YARD ALTERNATIVE



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | —E—   |
| GAS LINE   | —G—   |
| WATER  | —W—   |
| SEWER  | —S—   |
| TELEPHONE  | —T—   |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



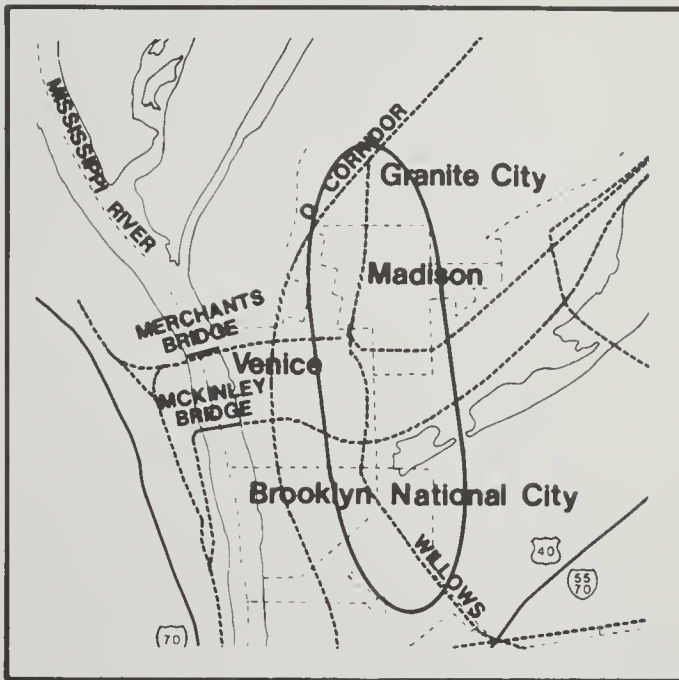




FIGURE 2 OF 6

# WILLOWS CORRIDOR

3  
YARD  
ALTERNATIVE



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ———  ———  |
| MILEPOST   | ———○———   |
| SCHOOL   | ———□———   |
| CHURCH   | ———+———   |
| ELECTRIC   | —————     |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |

400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

Section VII

Section VII

Section VIII



FIGURE 2 OF 6

WILLOWS CORRIDOR  
3  
YARD  
ALTERNATIVE



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊞     |
| ELECTRIC   | —E—   |
| GAS LINE   | —G—   |
| WATER  | —W—   |
| SEWER  | —S—   |
| TELEPHONE  | —T—   |

400 200 0 400

SCALE IN FEET

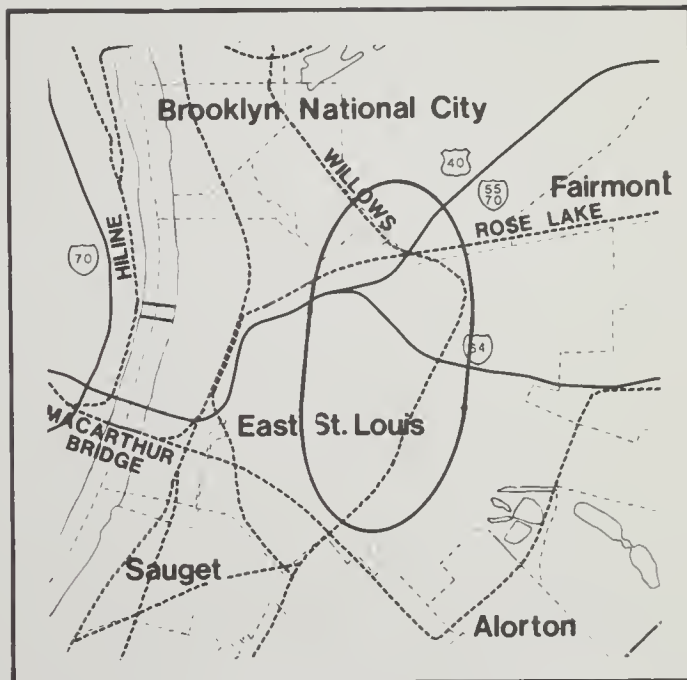
ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE KNIGHT





FIGURE 3 OF 6

## WILLOWS CORRIDOR



### VICINITY MAP

### LEGEND

|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



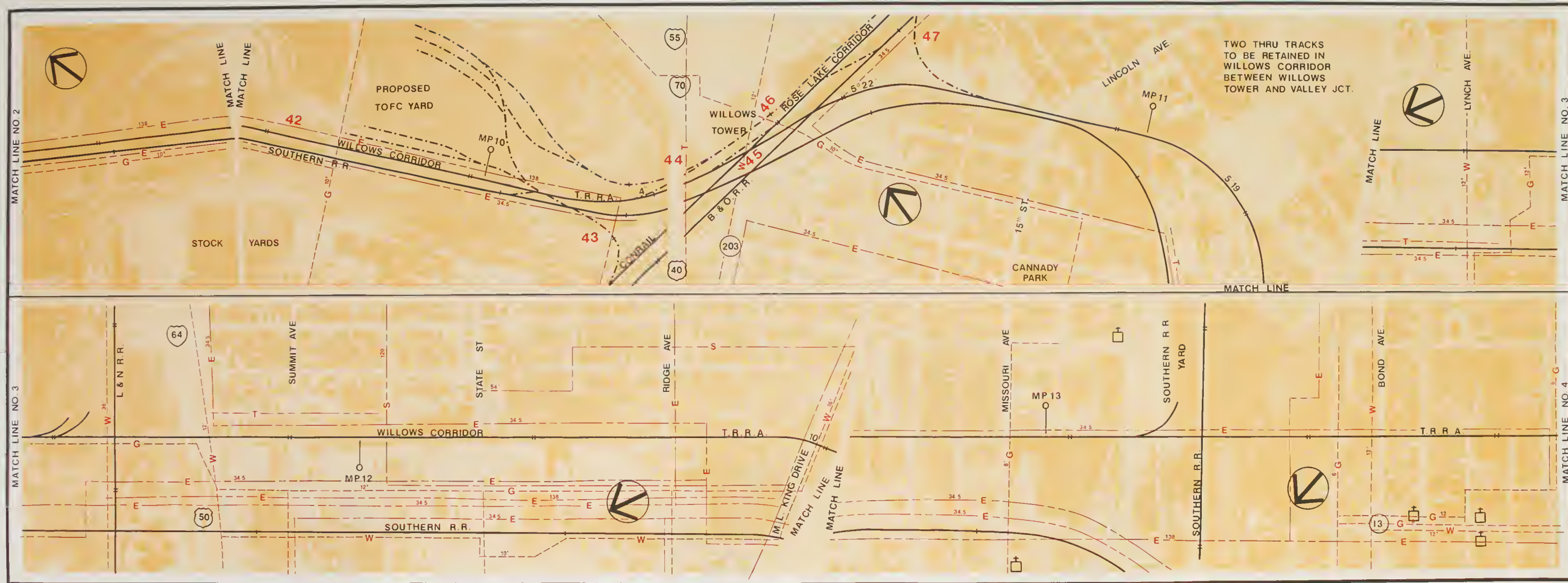
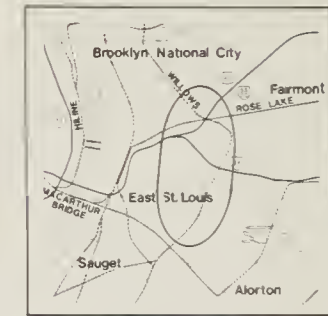


FIGURE 3 OF 6

# WILLOWS CORRIDOR



VICINITY MAP

## LEGEND

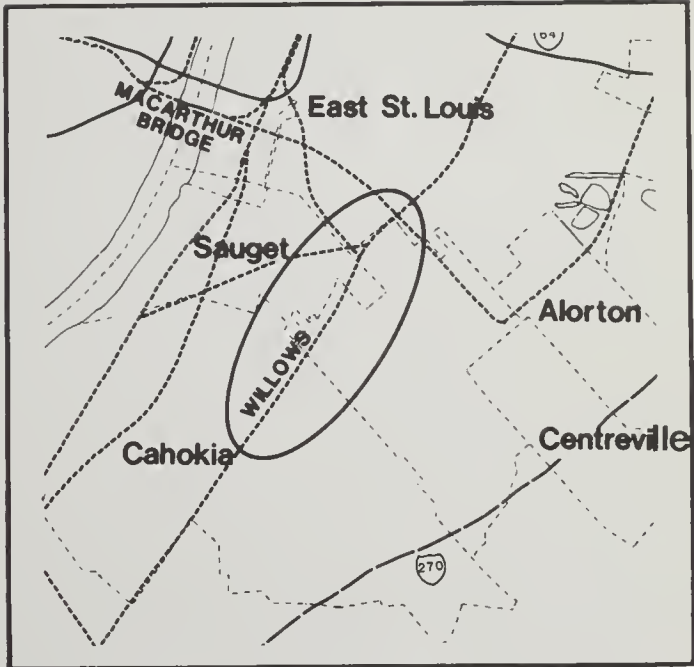
|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | ⬢     |
| CHURCH   | ⊕     |
| ELECTRIC   | - - - |
| GAS LINE   | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE KNIGHT

FIGURE 4 OF 6

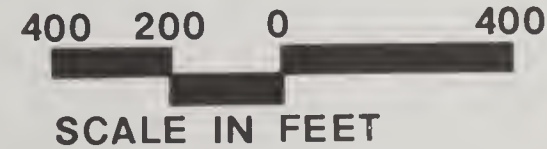
WILLOWS CORRIDOR



VICINITY MAP

LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○———   |
| SCHOOL   | ———□———   |
| CHURCH   | ———+———   |
| ELECTRIC   | ———       |
| GAS LINE   | ———       |
| WATER  | ———       |
| SEWER  | ———       |
| TELEPHONE  | ———       |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

MATCH LINE NO. 5

MATCH LINE NO. 6

Section VII

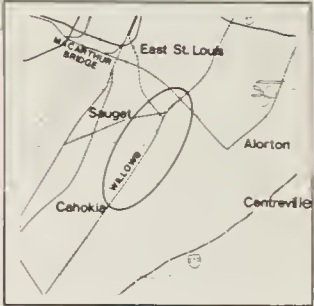
Section VIII

Section VIII



FIGURE 4 OF 6

WILLOWS CORRIDOR



VICINITY MAP

LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | ○         |
| SCHOOL   | □         |
| CHURCH   | ⊞         |
| ELECTRIC   | — · — · — |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |

400 200 0 400

SCALE IN FEET

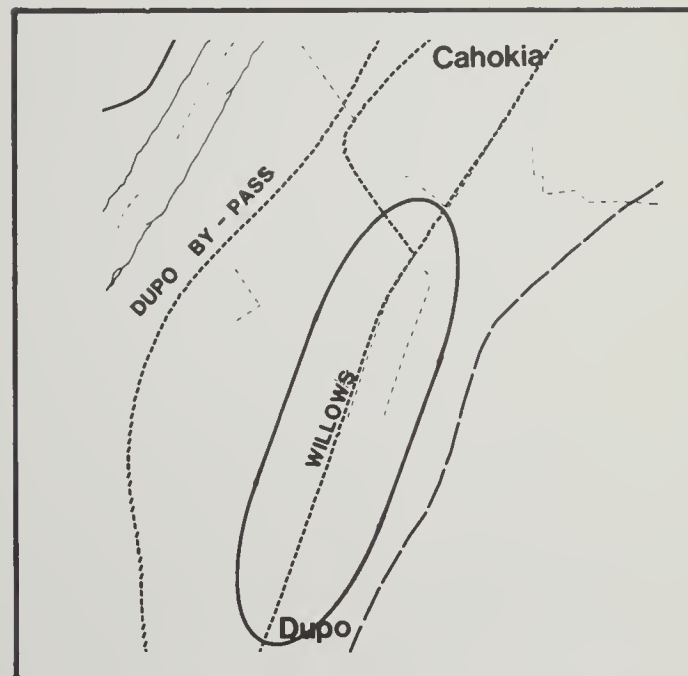
ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE KNIGHT





FIGURE 5 OF 6

## WILLOWS CORRIDOR



VICINITY MAP

### LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○———   |
| SCHOOL   | □         |
| CHURCH   | □+        |
| ELECTRIC   | —————     |
| GAS LINE   | - - - - - |
| WATER  | —————     |
| SEWER  | —————     |
| TELEPHONE  | —————     |

400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



FIGURE 5 OF 6

# WILLOWS CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | ○         |
| SCHOOL   | □         |
| CHURCH   | ⊕         |
| ELECTRIC   | — · — · — |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |

400 200 0 400

SCALE IN FEET

ST LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE, KNIGHT

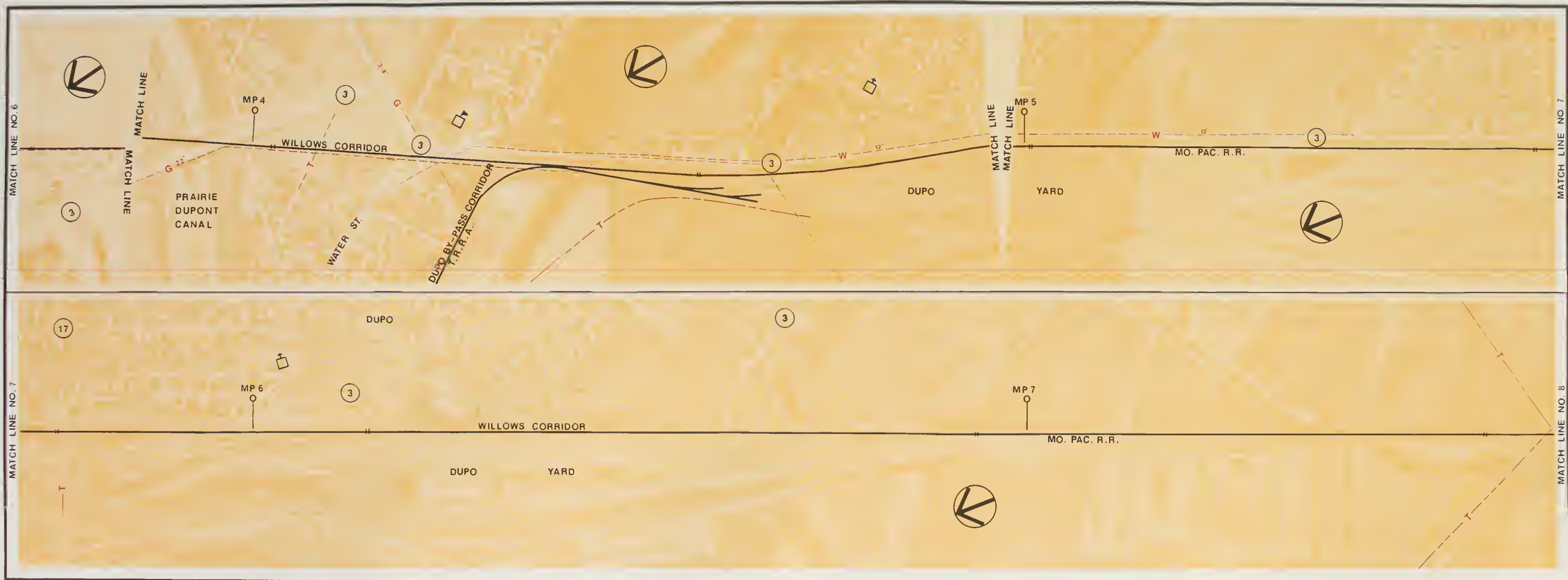
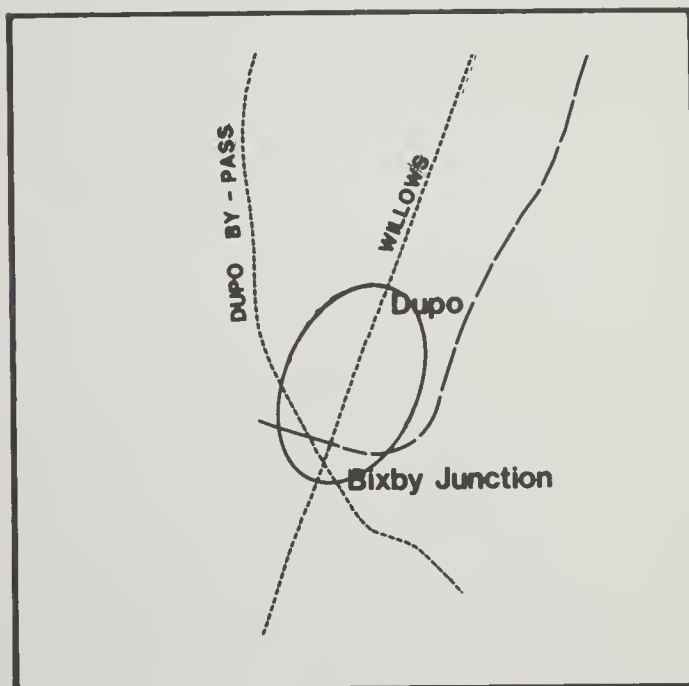


FIGURE 6 OF 6

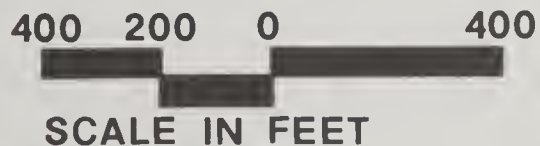
# WILLOWS CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—       |
| MILEPOST   | —○—       |
| SCHOOL   | —□—       |
| CHURCH   | —+—       |
| ELECTRIC   | — — — — — |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

MATCH LINE NO. 8

MATCH LINE NO. 9

MP 8



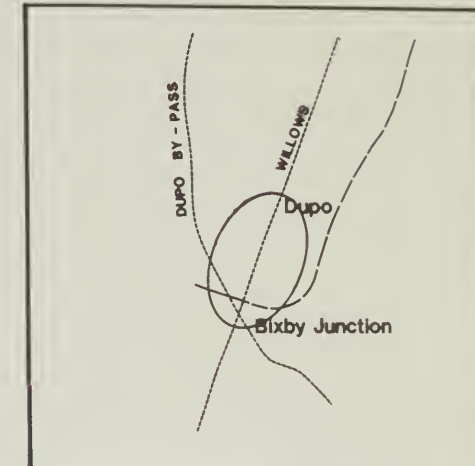
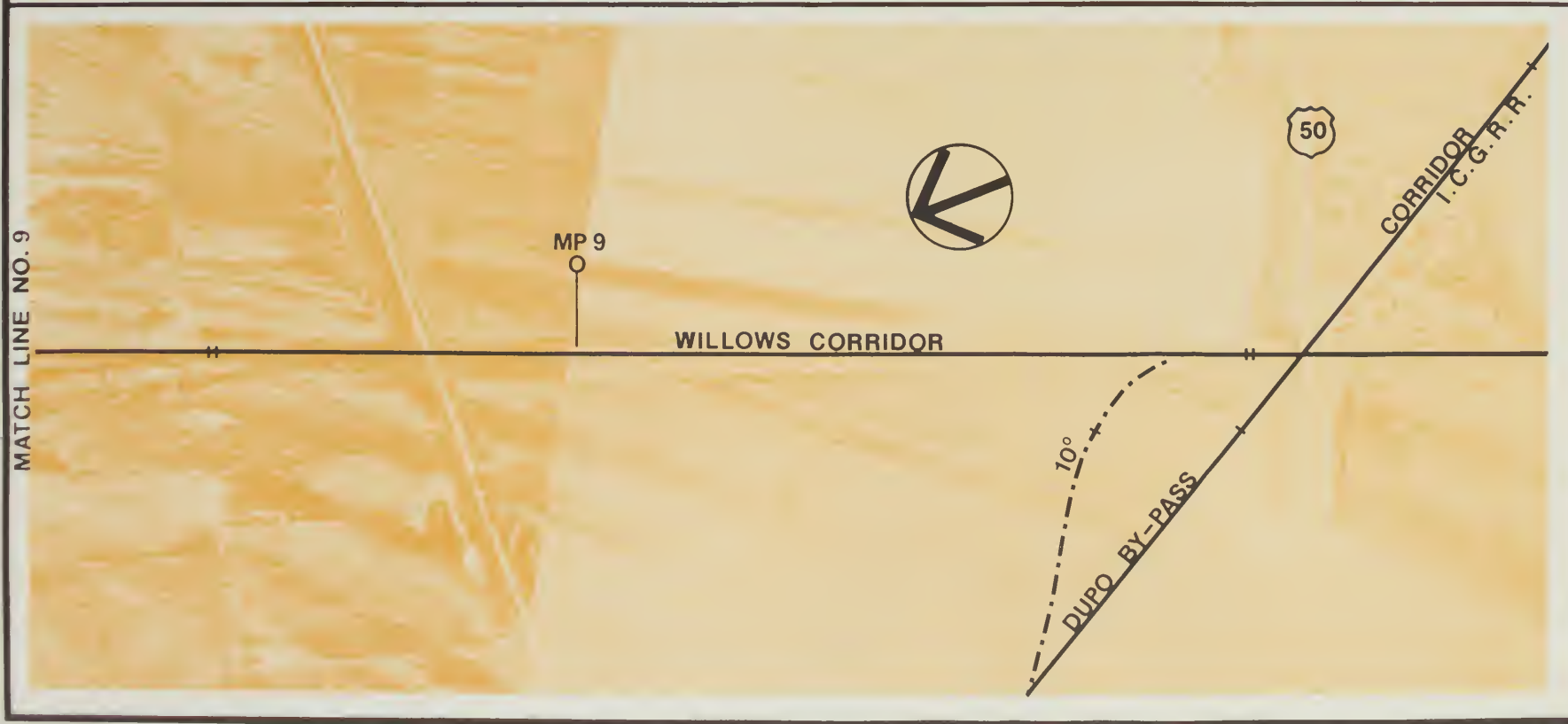
FIGURE 6 OF 6

# WILLOWS CORRIDOR

MATCH LINE NO. 8

MATCH LINE NO. 9

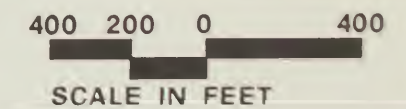
MATCH LINE NO. 9



VICINITY MAP

## LEGEND

|  |         |
|--|---------|
| EXISTING RAIL                                      | —       |
| PROPOSED RAIL                                      | - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |         |
| MILEPOST   | ○       |
| SCHOOL   | +       |
| CHURCH   | □       |
| ELECTRIC   | —       |
| GAS LINE   | - - - - |
| WATER  | - - - - |
| SEWER  | - - - - |
| TELEPHONE  | - - - - |



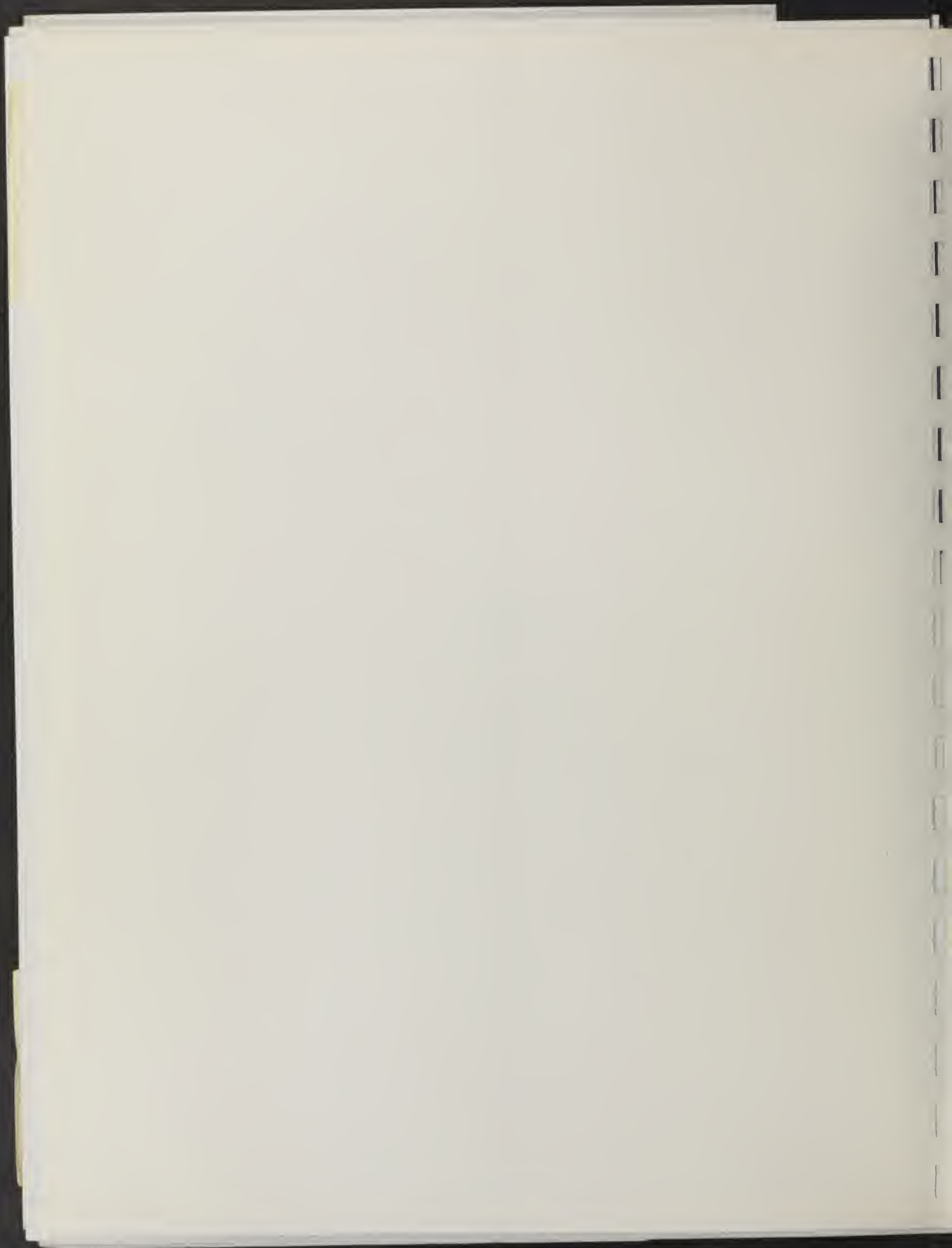
Section V

Section VII

Section VIII

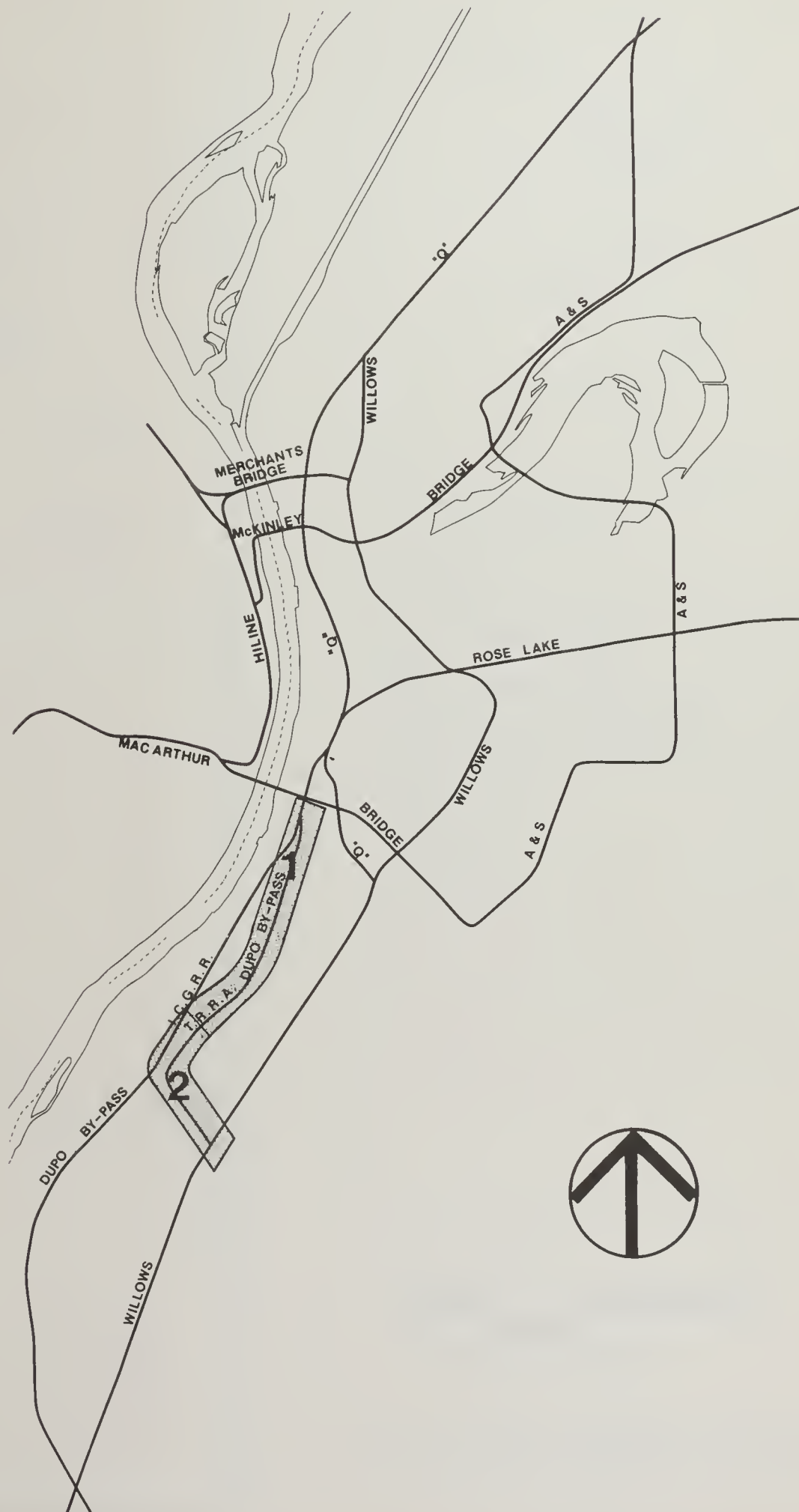
## Section V





# DUPO BY-PASS CORRIDOR (T.R.R.A.)

## KEY MAP





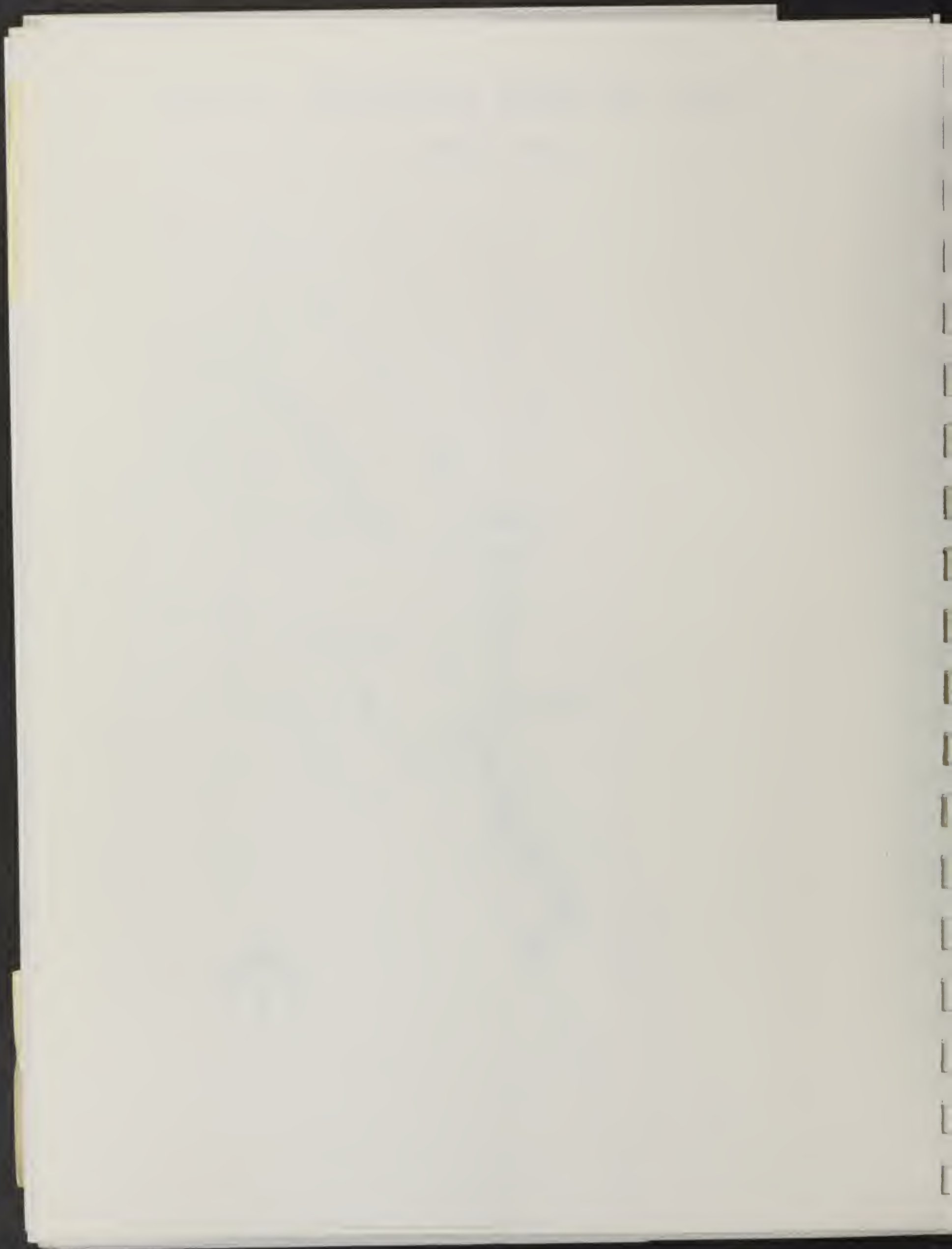


FIGURE 1 OF 2

# DUPO BY-PASS CORRIDOR T.R.R.A.



VICINITY MAP

## LEGEND

|  |              |
|--|--------------|
| EXISTING RAIL                                      | —————        |
| PROPOSED RAIL                                      | - - - - -    |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——        |
| MILEPOST   | ———○———      |
| SCHOOL   | ———□———      |
| CHURCH   | ———□———      |
| ELECTRIC   | ———- - - - - |
| GAS LINE   | ———- - - - - |
| WATER  | ———- - - - - |
| SEWER  | ———- - - - - |
| TELEPHONE  | ———- - - - - |

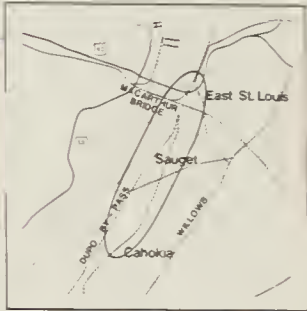


ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT





FIGURE 1 OF 2  
**DUPO BY-PASS  
 CORRIDOR T.R.R.A.**



VICINITY MAP

LEGEND

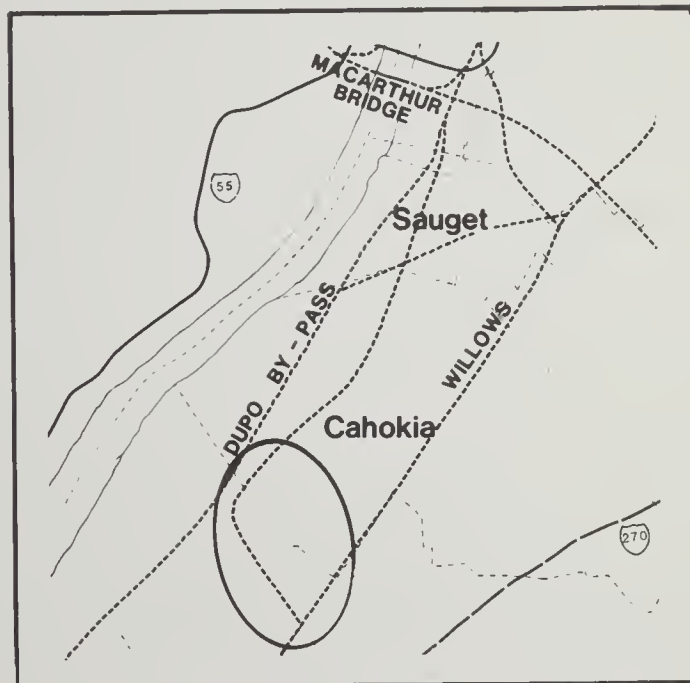
|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | MP        |
| SCHOOL   | □         |
| CHURCH   | ⊕         |
| ELECTRIC   | —•—•—•—   |
| GAS LINE   | - - - - - |
| WATER  | ~~~~~     |
| SEWER  | - - - - - |
| TELEPHONE  | —•—•—•—   |



MATCH LINE NO. 2

FIGURE 2 OF 2

# DUPO BY-PASS CORRIDOR T.R.R.A.



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—       |
| MILEPOST   | — —       |
| SCHOOL   | — —       |
| CHURCH   | — —       |
| ELECTRIC   | —+—       |
| GAS LINE   | —+—       |
| WATER  | —+—       |
| SEWER  | —+—       |
| TELEPHONE  | —+—       |

400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

Section VI

Section VII

Section VIII



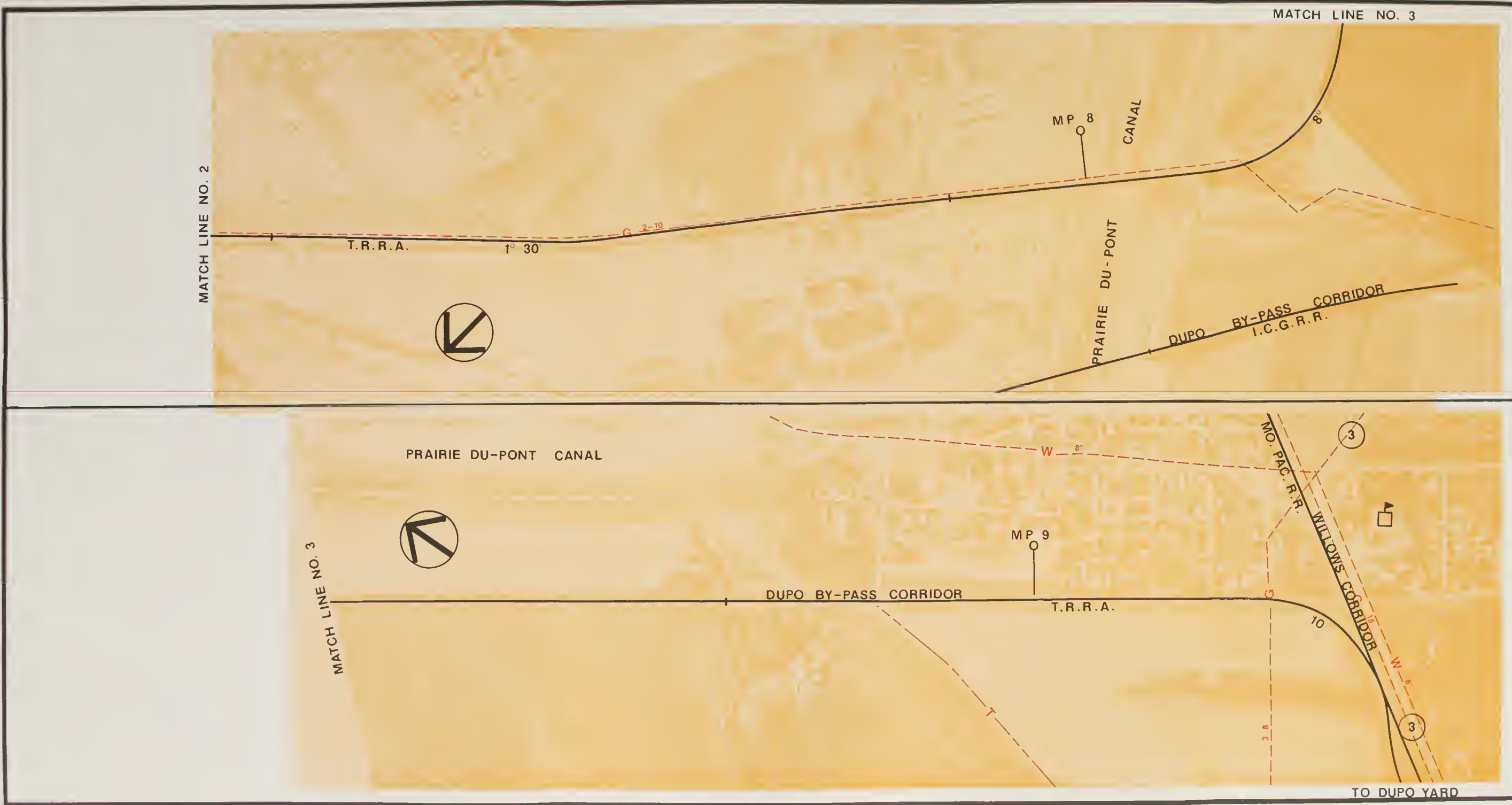


FIGURE 2 OF 2

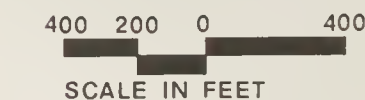
# DUPO BY-PASS CORRIDOR T.R.R.A.



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | ○         |
| SCHOOL   | □         |
| CHURCH   | +         |
| ELECTRIC   | ———       |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |



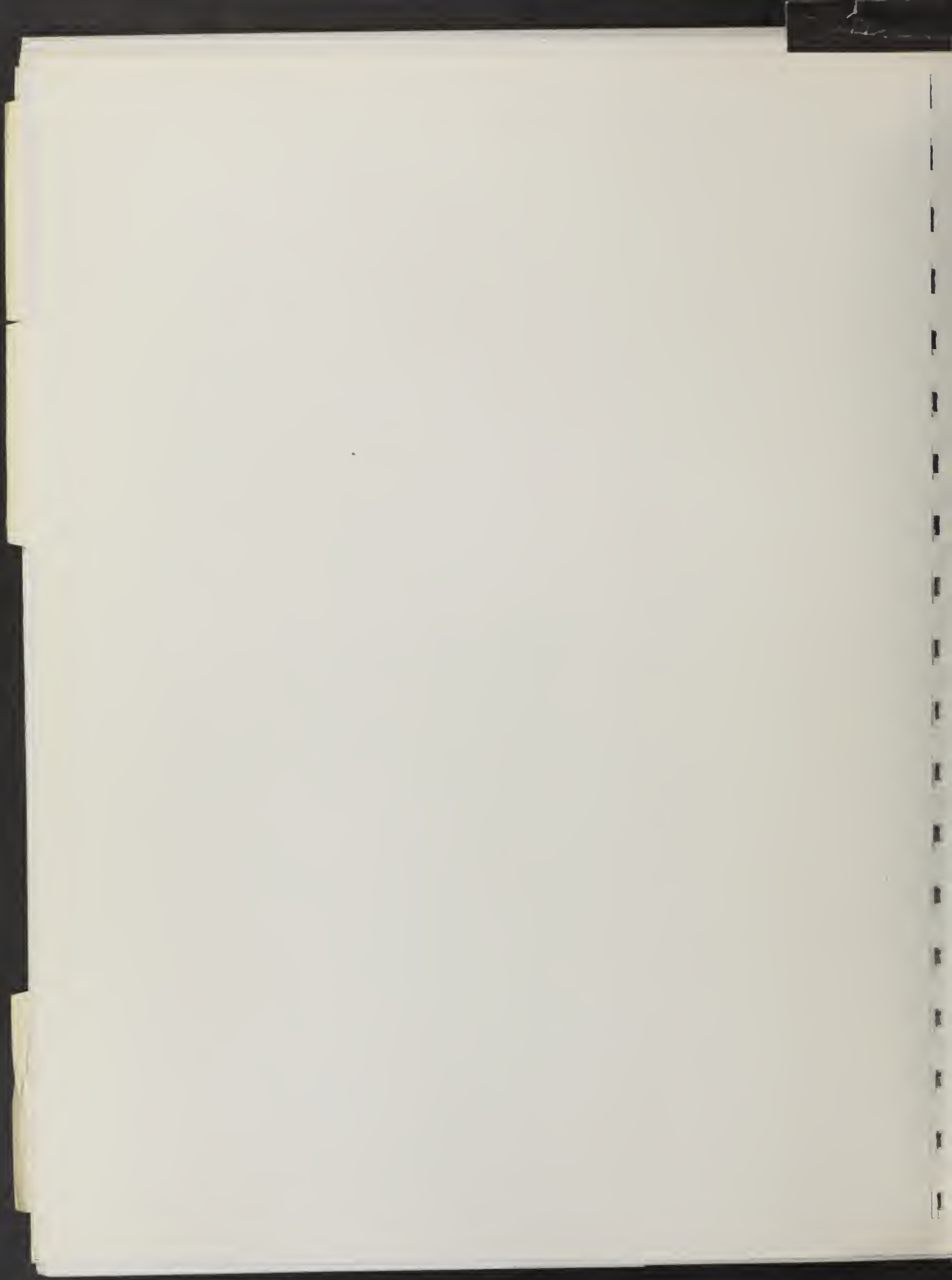
Section VI

Section VII

Section VIII

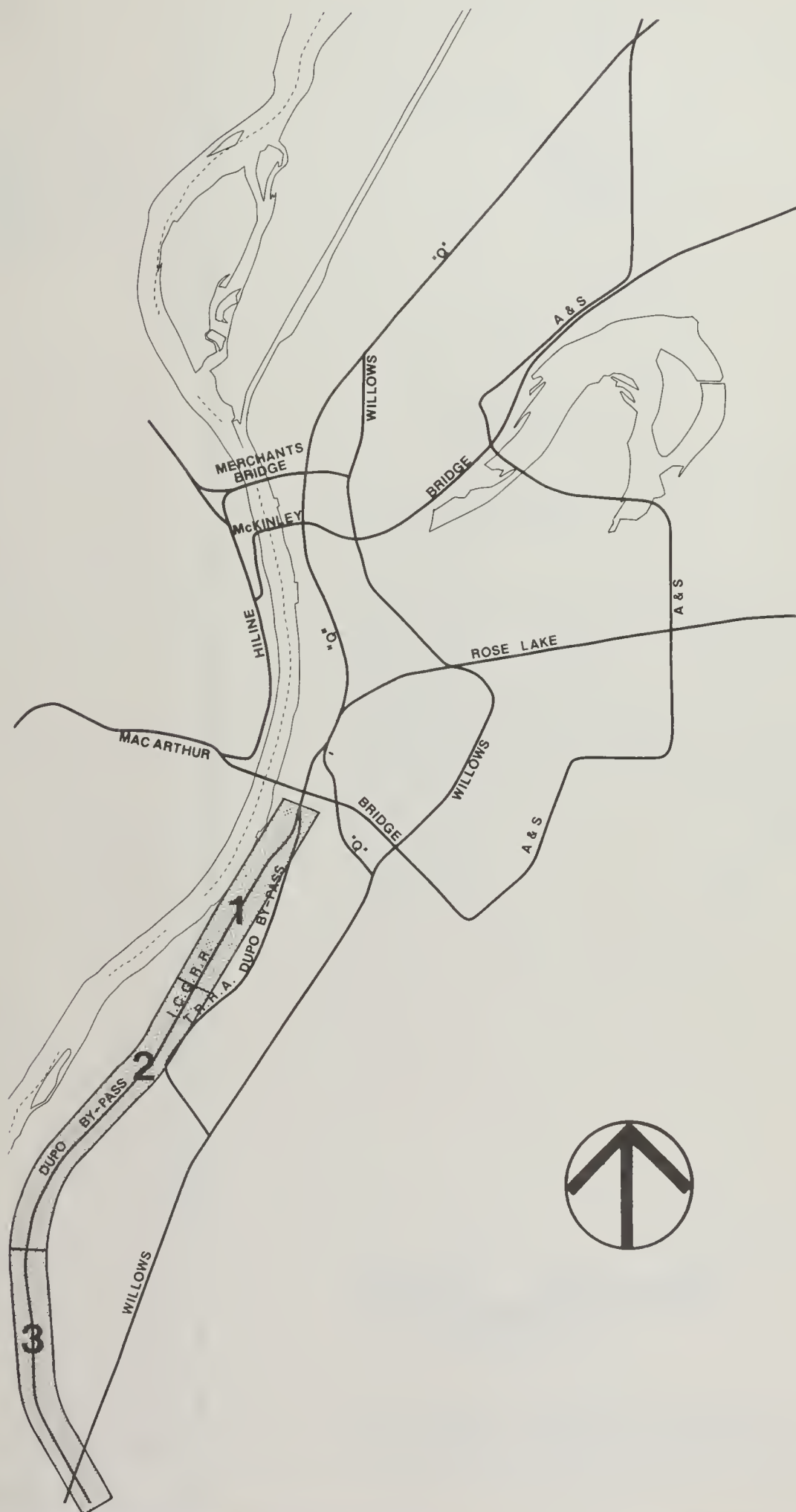
## Section VI





# DUPO BY-PASS CORRIDOR (I.C.G.R.R.)

## KEY MAP





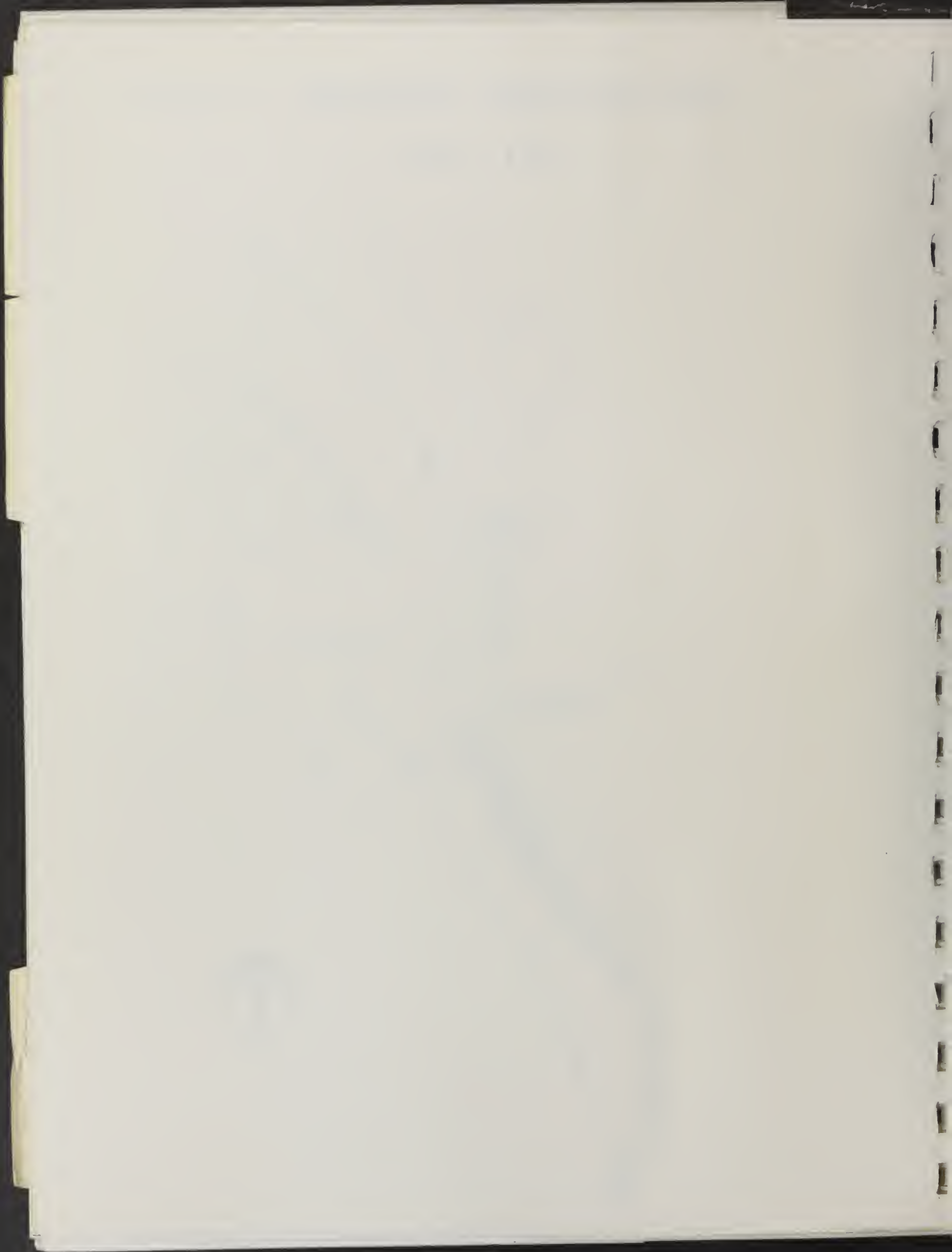
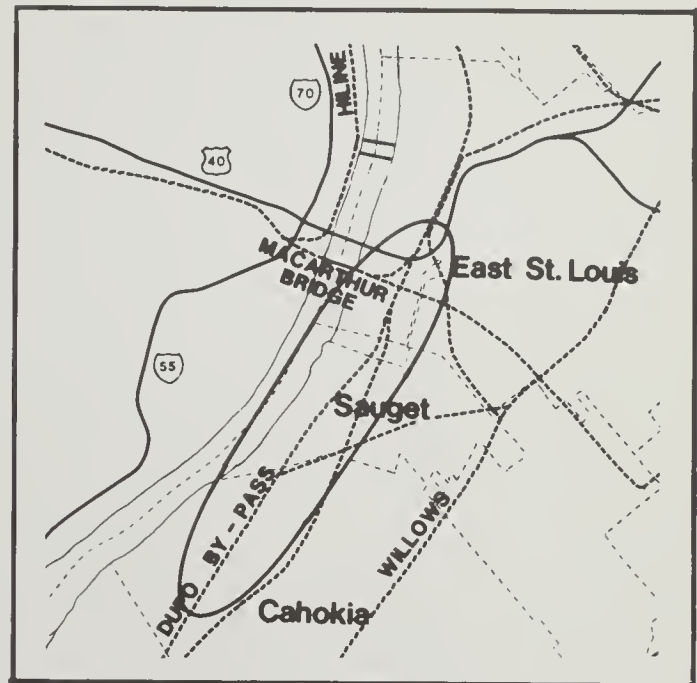


FIGURE 1 OF 3

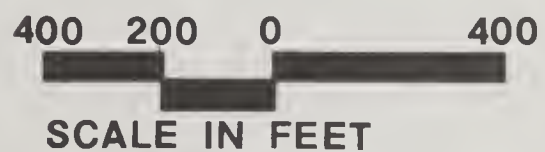
# DUPO BY-PASS CORRIDOR I.C.G.R.R.



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○———   |
| SCHOOL   | □         |
| CHURCH   | ⊕         |
| ELECTRIC   | ———       |
| GAS LINE   | ———       |
| WATER  | ———       |
| SEWER  | ———       |
| TELEPHONE  | ———       |

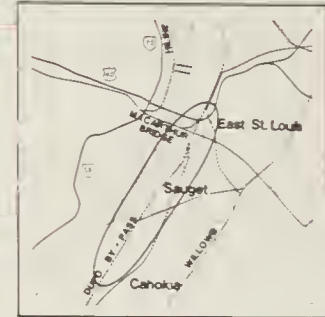


ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT





FIGURE 1 OF 3  
 DUPO BY-PASS  
 CORRIDOR I.C.G.R.R.



VICINITY MAP

LEGEND

|  |         |
|--|---------|
| EXISTING RAIL                                      | —       |
| PROPOSED RAIL                                      | - - -   |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |         |
| MILEPOST   | ○       |
| SCHOOL   | □       |
| CHURCH   | ⊕       |
| ELECTRIC   | - - - E |
| GAS LINE   | - - - G |
| WATER  | - - - W |
| SEWER  | - - - S |
| TELEPHONE  | - - - T |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
 SVERDRUP/ENVIRODYNE KNIGHT

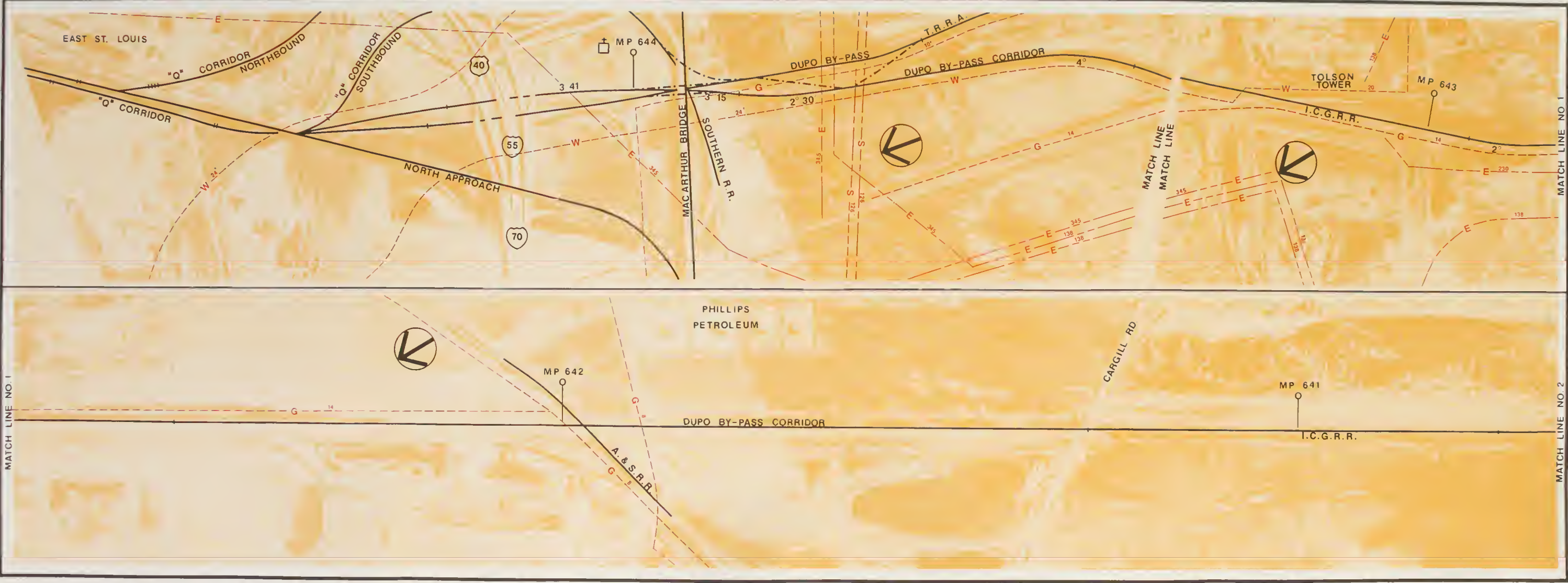
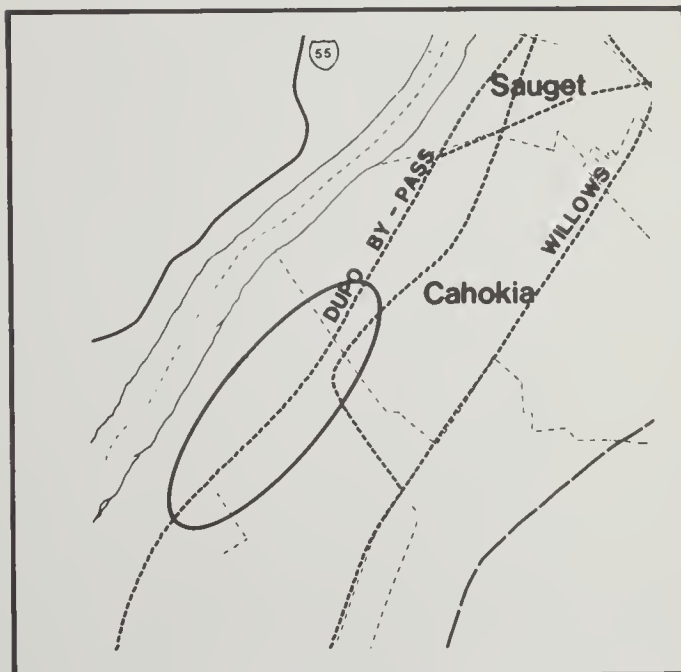


FIGURE 2 OF 3

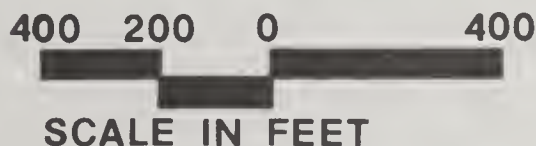
# DUPO BY-PASS CORRIDOR I.C.G.R.R.



VICINITY MAP

## LEGEND

|  |                     |
|--|---------------------|
| EXISTING RAIL                                      | —+—+—+—+—+—+—+—+—+— |
| PROPOSED RAIL                                      | —+—+—+—+—+—+—+—+—+— |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—+—+—+—+—+—+—+—+— |
| MILEPOST   | —+—+—+—+—+—+—+—+—+— |
| SCHOOL   | —+—+—+—+—+—+—+—+—+— |
| CHURCH   | —+—+—+—+—+—+—+—+—+— |
| ELECTRIC   | —+—+—+—+—+—+—+—+—+— |
| GAS LINE   | —+—+—+—+—+—+—+—+—+— |
| WATER  | —+—+—+—+—+—+—+—+—+— |
| SEWER  | —+—+—+—+—+—+—+—+—+— |
| TELEPHONE  | —+—+—+—+—+—+—+—+—+— |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

Section VII

Section VIII

MATCH LINE NO. 3

MATCH LINE NO. 4

MATCH LINE  
MATCH LINE



FIGURE 2 OF 3  
 DUPO BY-PASS  
 CORRIDOR I.C.G.R.R.



VICINITY MAP

LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | ○         |
| SCHOOL   | □         |
| CHURCH   | +         |
| ELECTRIC   | —•—•—•—   |
| GAS LINE   | - - - - - |
| WATER  | - - - - - |
| SEWER  | - - - - - |
| TELEPHONE  | - - - - - |

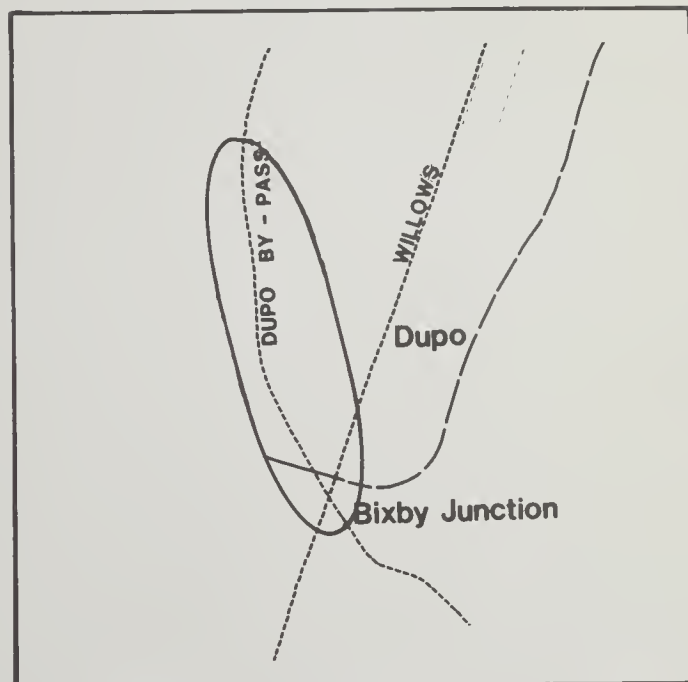


SCALE IN FEET



FIGURE 3 OF 3

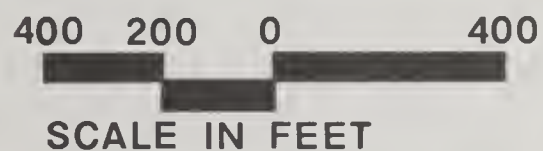
# DUPO BY-PASS CORRIDOR I.C.G.R.R.



VICINITY MAP

## LEGEND

|  |               |
|--|---------------|
| EXISTING RAIL                                      | —————         |
| PROPOSED RAIL                                      | - - - - -     |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—           |
| MILEPOST   | —○—           |
| SCHOOL   | —□—           |
| CHURCH   | —+—           |
| ELECTRIC   | — · — · — · — |
| GAS LINE   | - - - - -     |
| WATER  | - - - - -     |
| SEWER  | — · — · — · — |
| TELEPHONE  | - - - - -     |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

Section VII

Section VIII



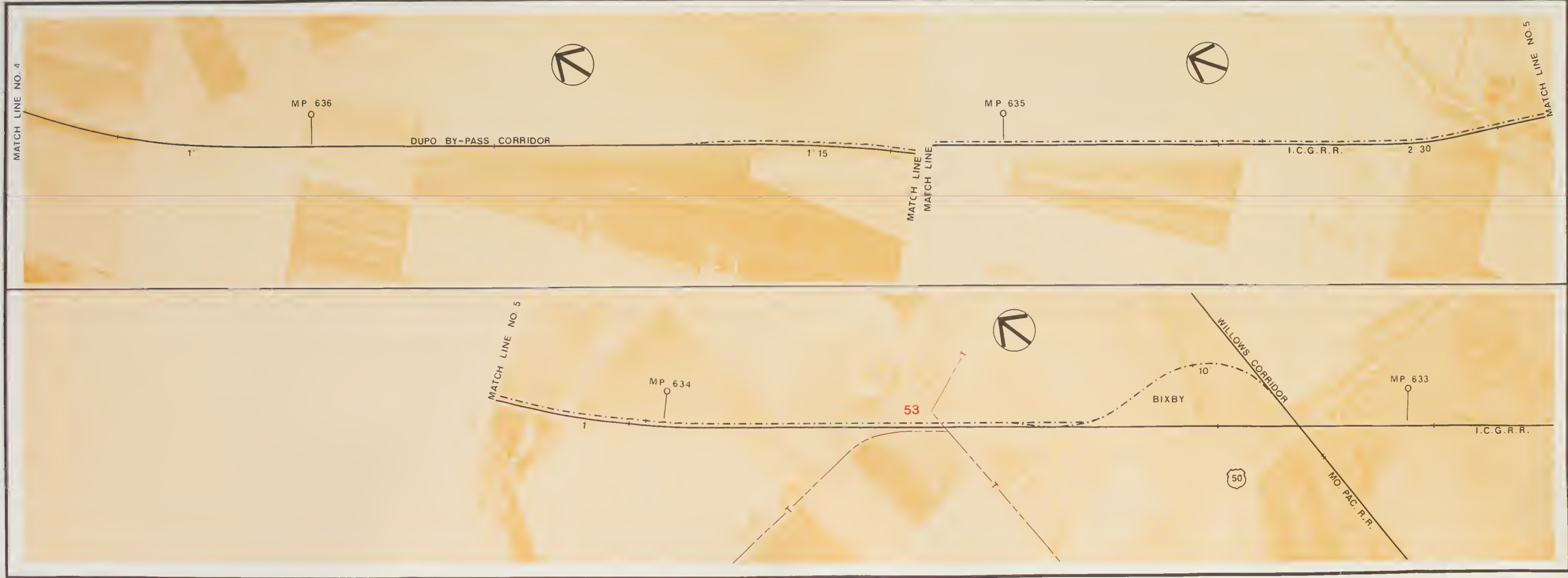
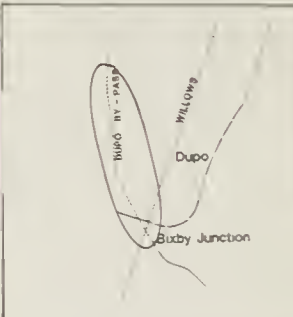


FIGURE 3 OF 3  
DUPO BY-PASS  
CORRIDOR I.C.G.R.R.



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | —     |
| GAS LINE   | —     |
| WATER  | —     |
| SEWER  | —     |
| TELEPHONE  | —     |

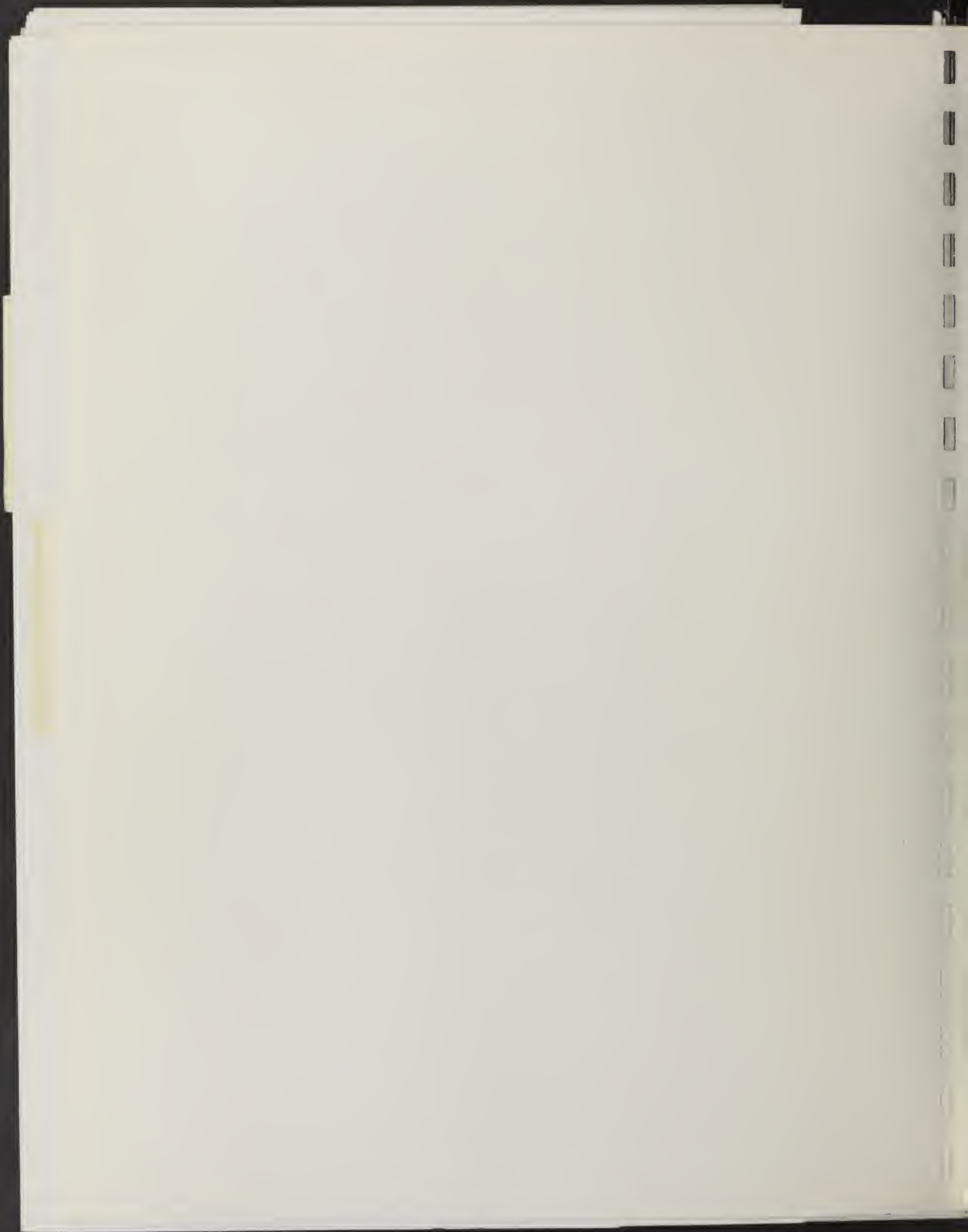


## Section VII

Section VII

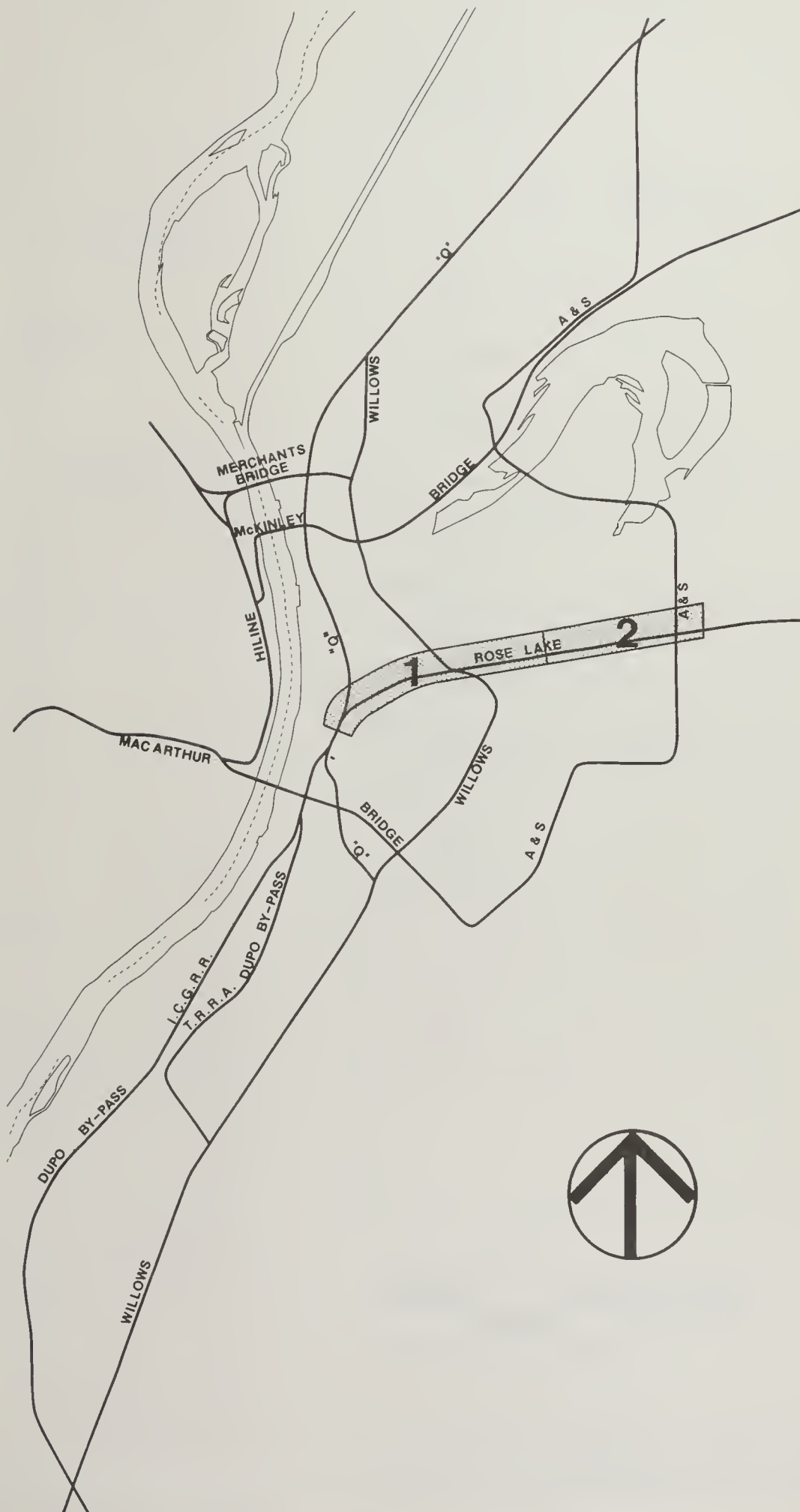
Section VIII





# ROSE LAKE CORRIDOR

## KEY MAP





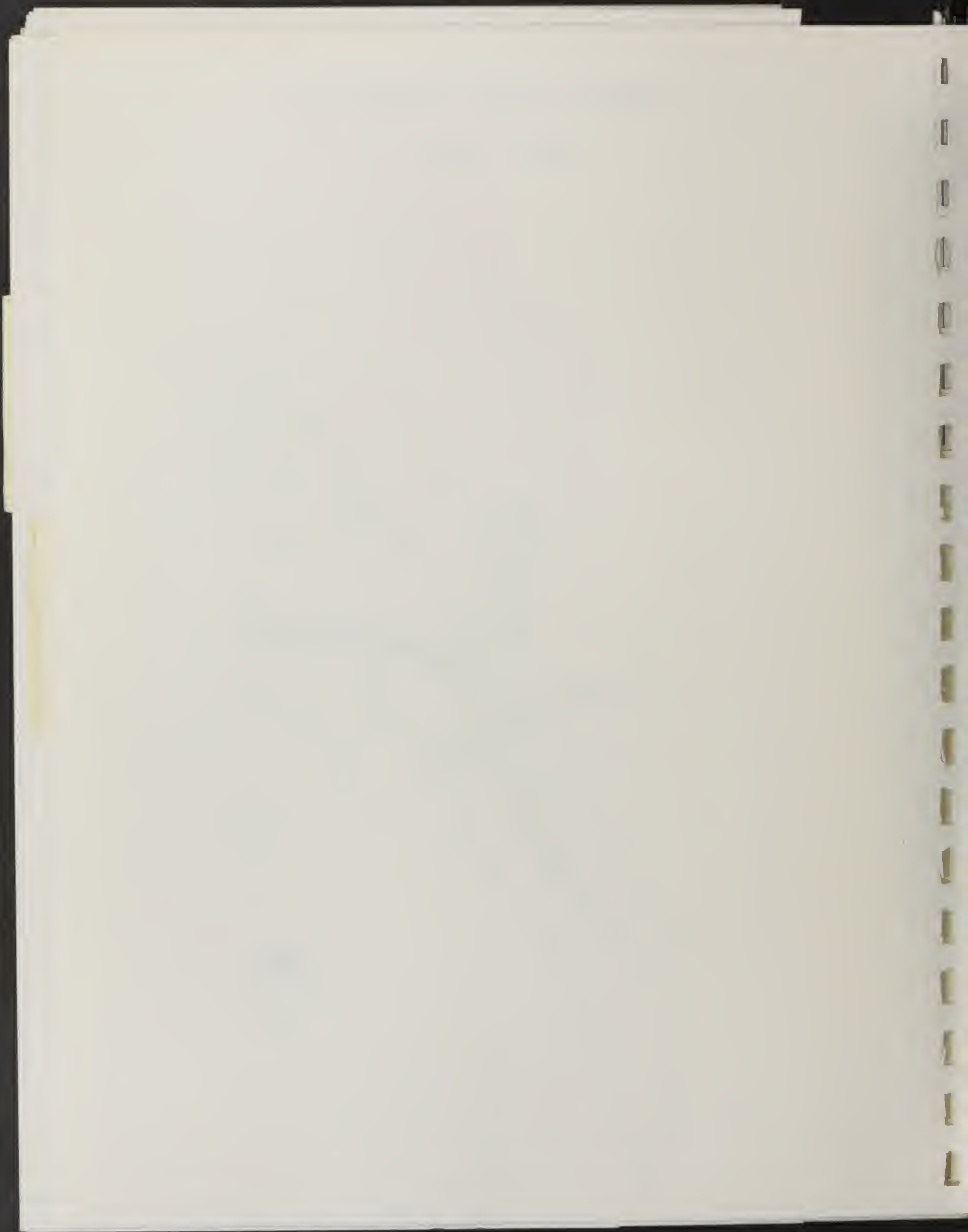


FIGURE 1 OF 2

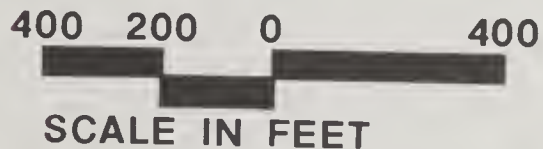
# ROSE LAKE CORRIDOR



VICINITY MAP

## LEGEND

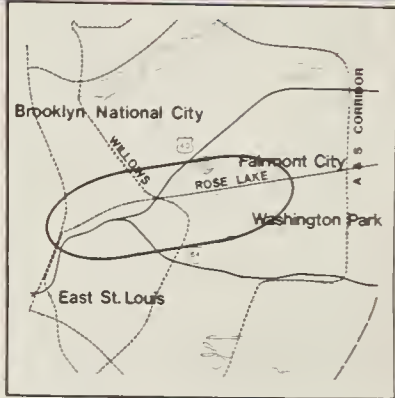
|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | ———○      |
| SCHOOL   | ———□      |
| CHURCH   | ———□      |
| <b>ELECTRIC</b>                                    | ———       |
| <b>GAS LINE</b>                                    | ———       |
| <b>WATER</b>                                       | ———       |
| <b>SEWER</b>                                       | ———       |
| <b>TELEPHONE</b>                                   | ———       |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



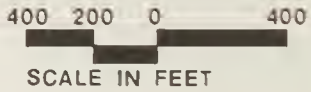
FIGURE 1 OF 2  
ROSE LAKE  
CORRIDOR



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | — —   |
| SCHOOL   | — —   |
| CHURCH   | — —   |
| ELECTRIC   | —E—   |
| GAS LINE   | —G—   |
| WATER  | —W—   |
| SEWER  | —S—   |
| TELEPHONE  | —T—   |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

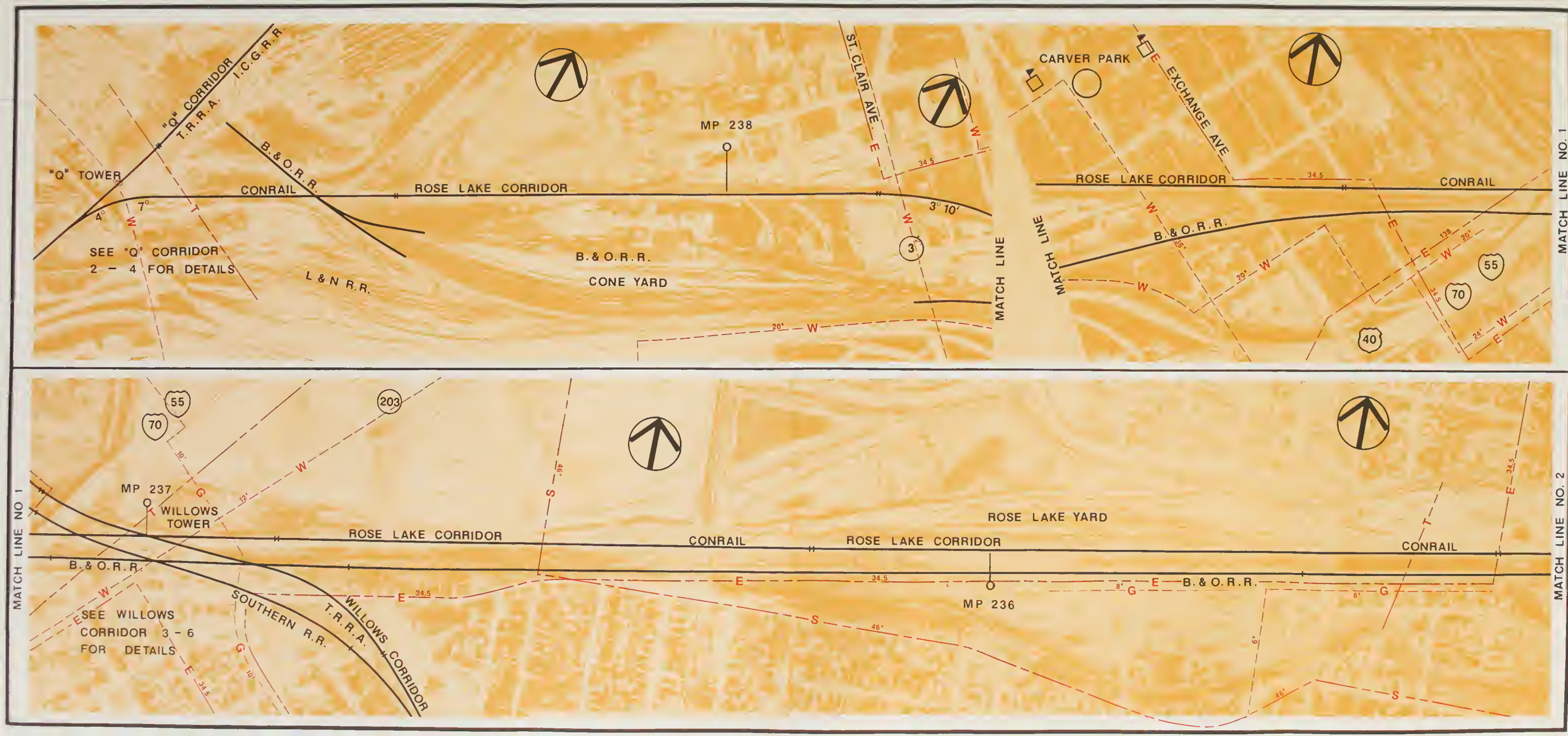
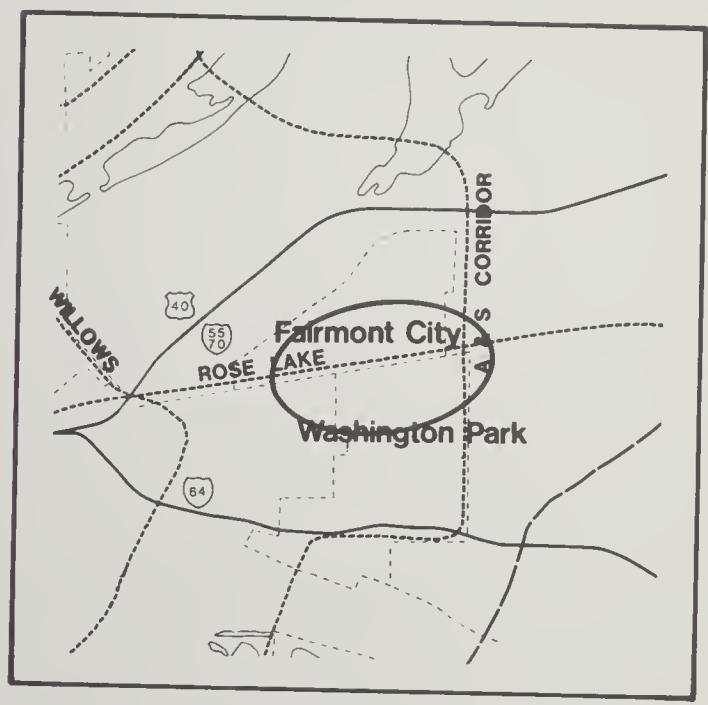




FIGURE 2 OF 2

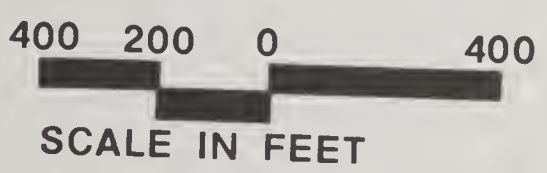
# ROSE LAKE CORRIDOR



VICINITY MAP

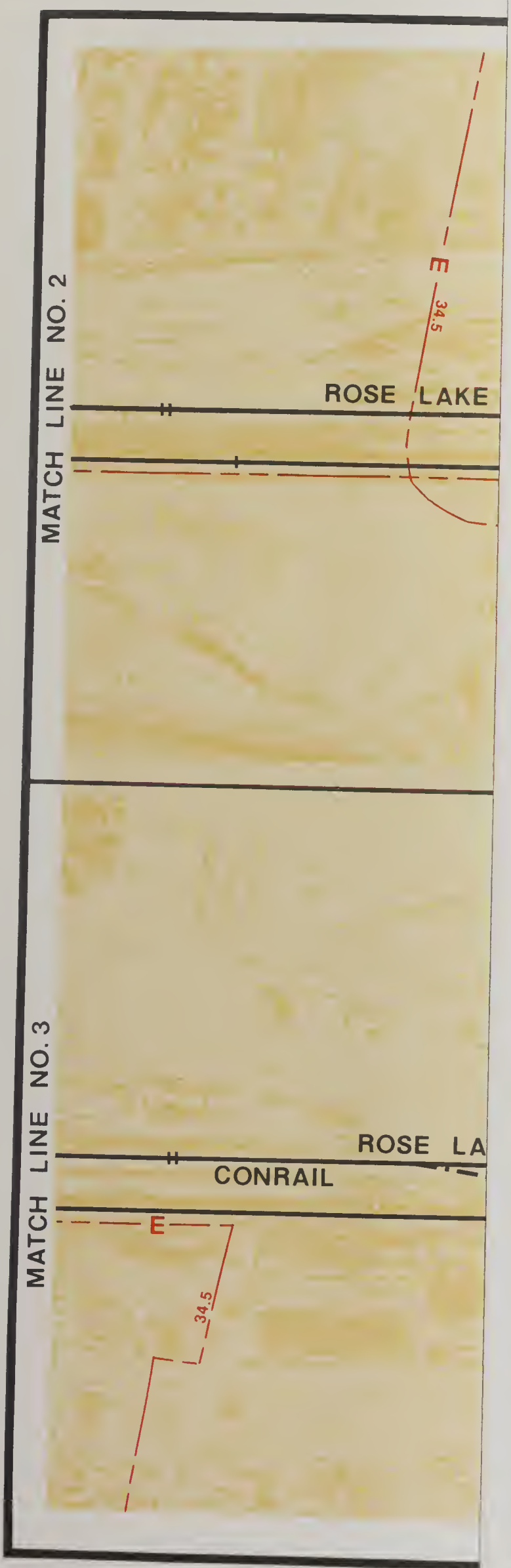
## LEGEND

|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |



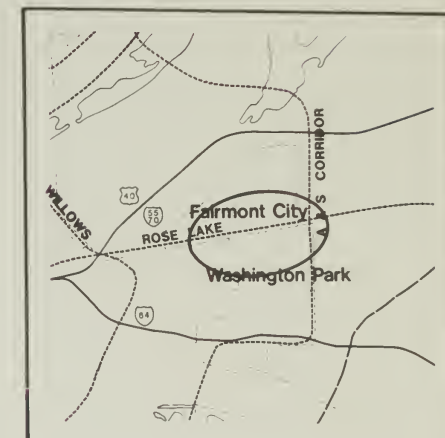
ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

Section VIII





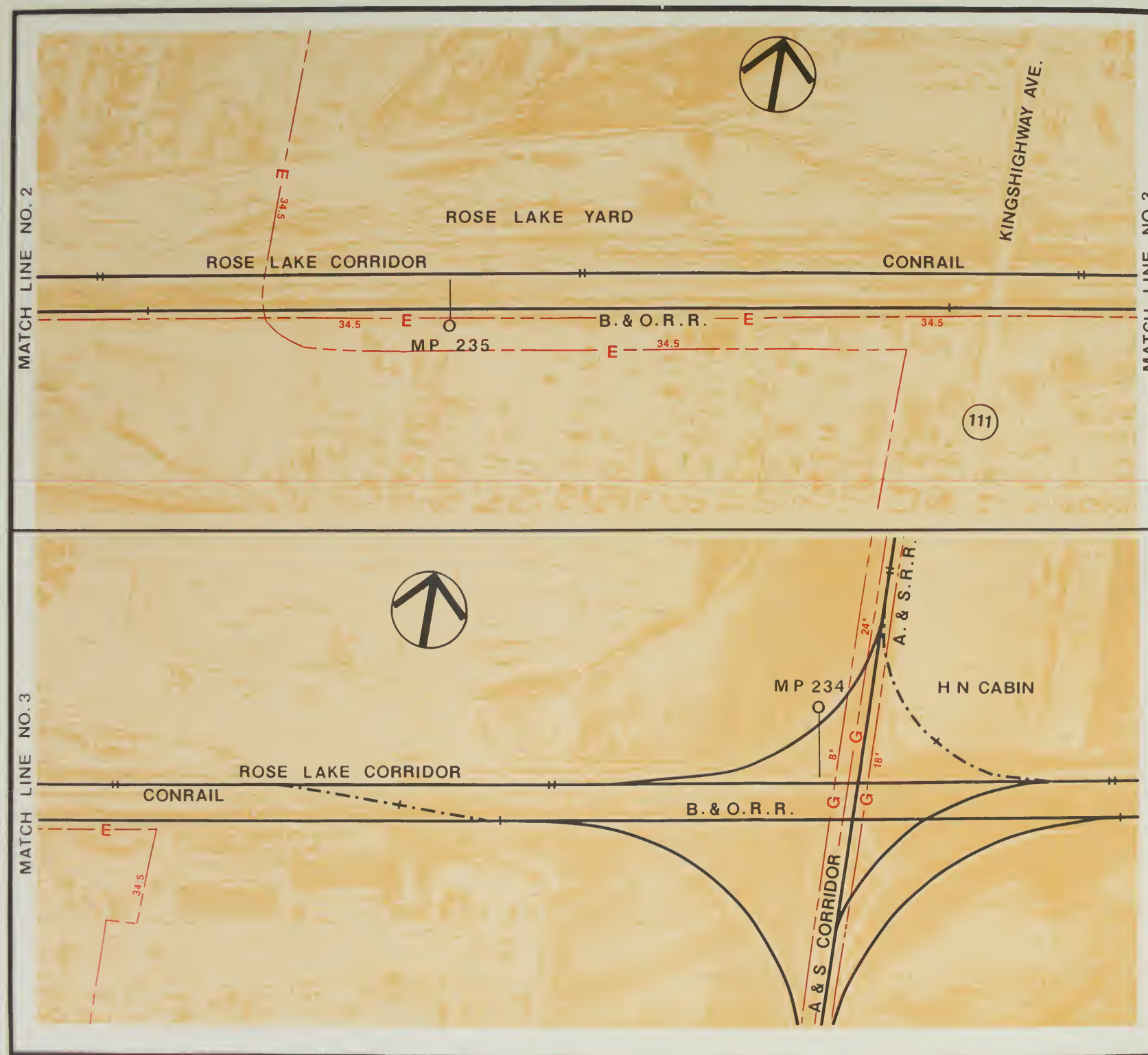
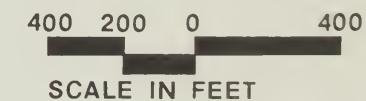
# ROSE LAKE CORRIDOR



VICINITY MAP

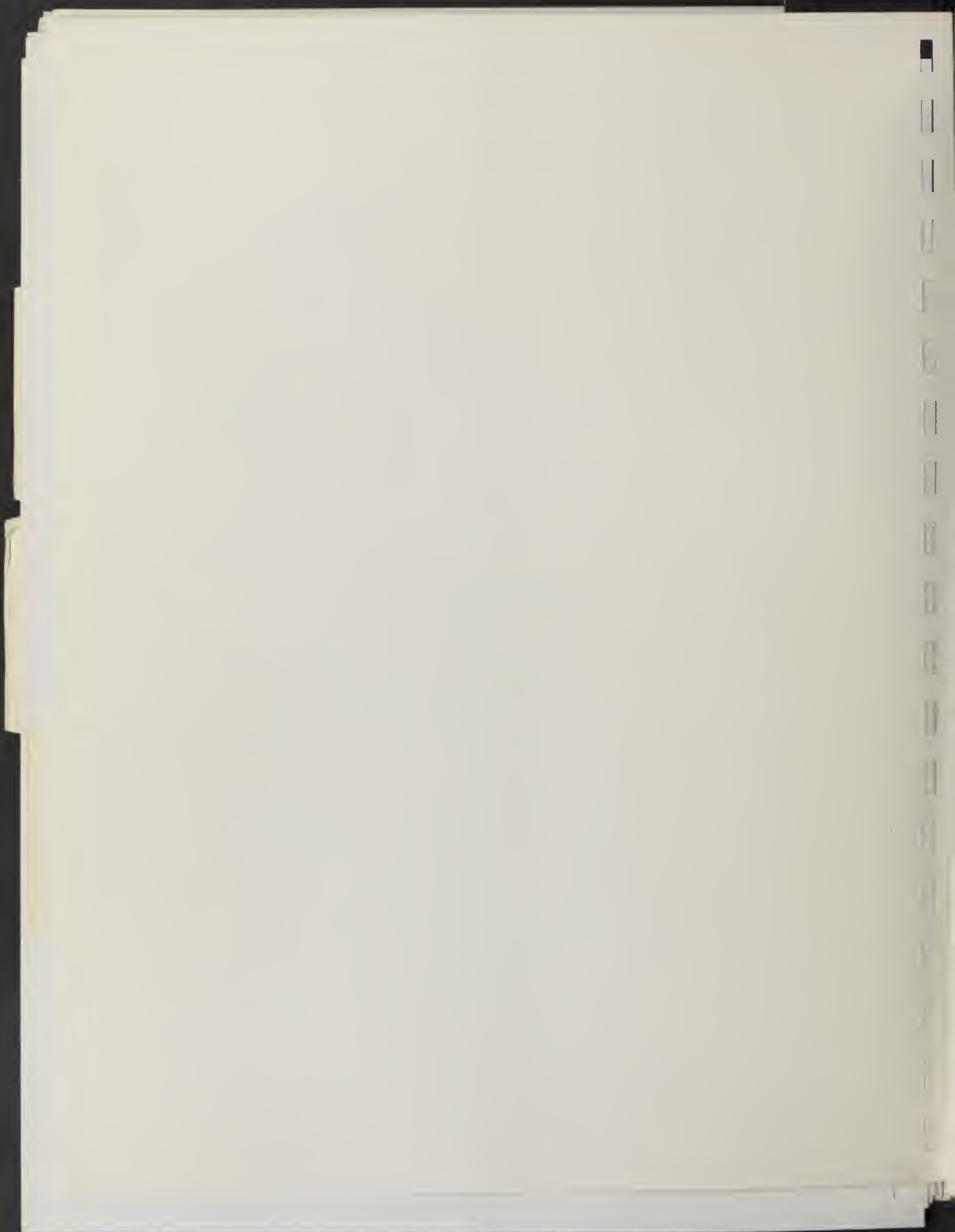
## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |           |
| MILEPOST   | ○         |
| SCHOOL   | □         |
| CHURCH   | ⊕         |
| ELECTRIC   | — · — · — |
| GAS LINE   | - - - - - |
| WATER  | · · · · · |
| SEWER  | — · — · — |
| TELEPHONE  | — · — · — |



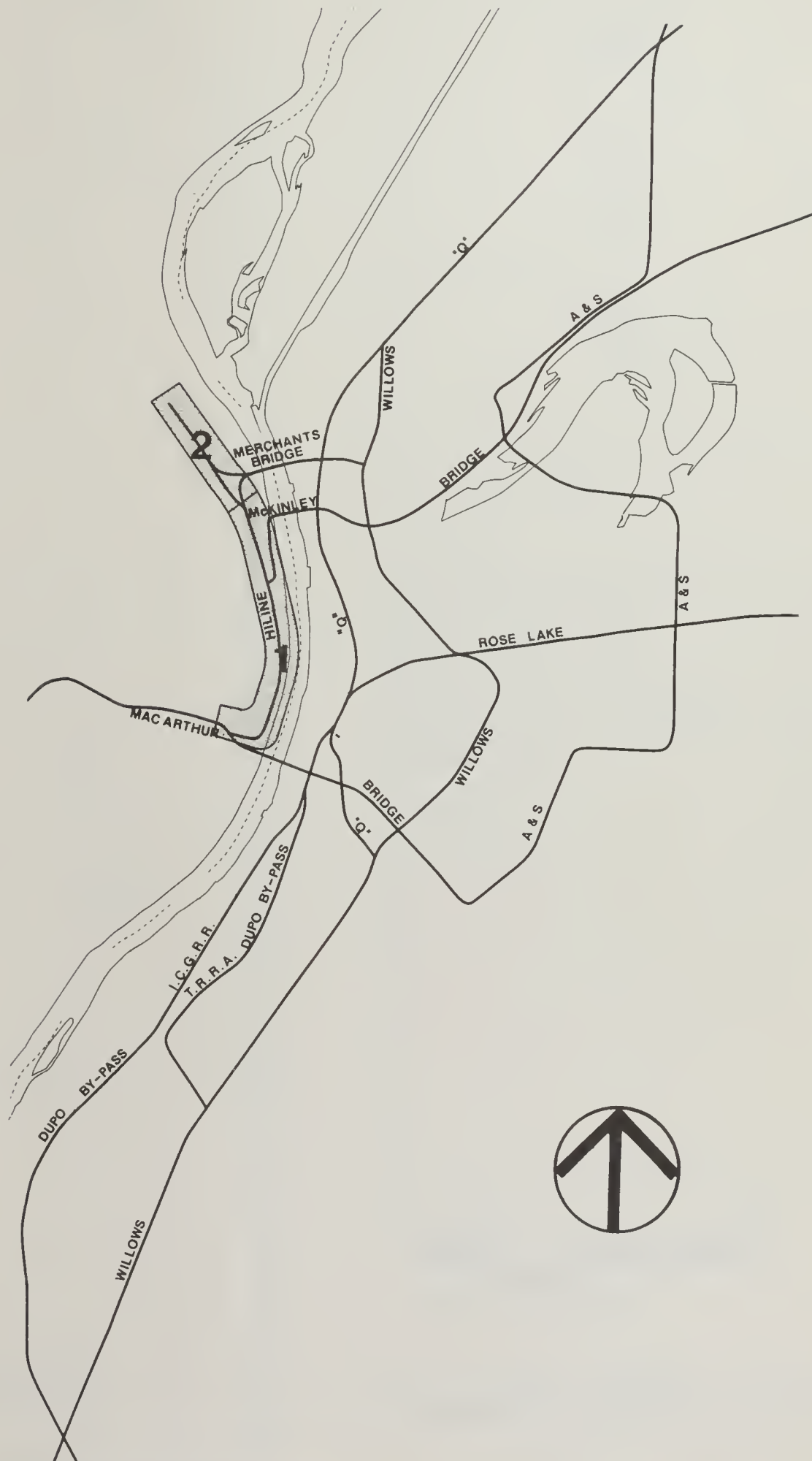
## Section VIII





# HILINE CORRIDOR

## KEY MAP





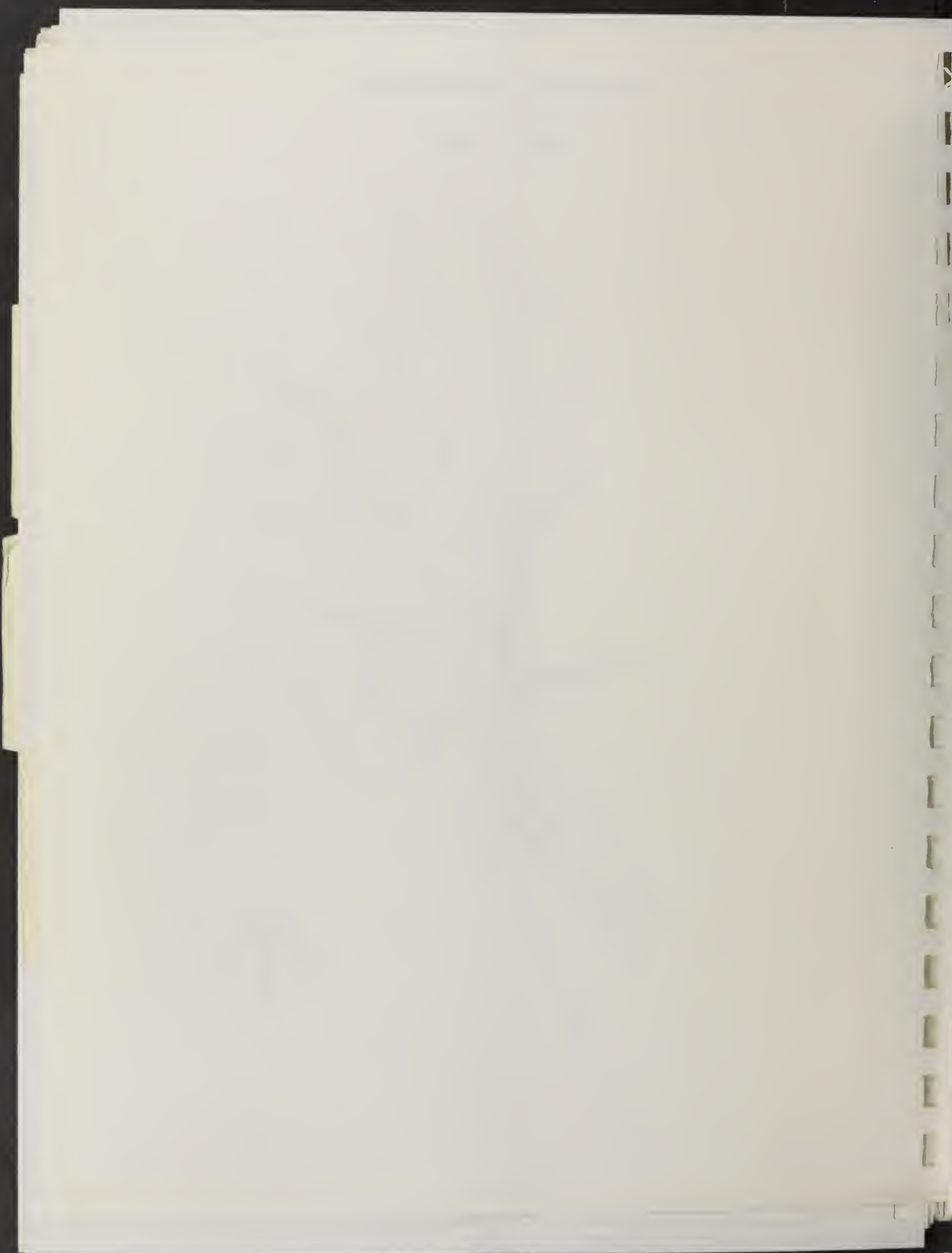
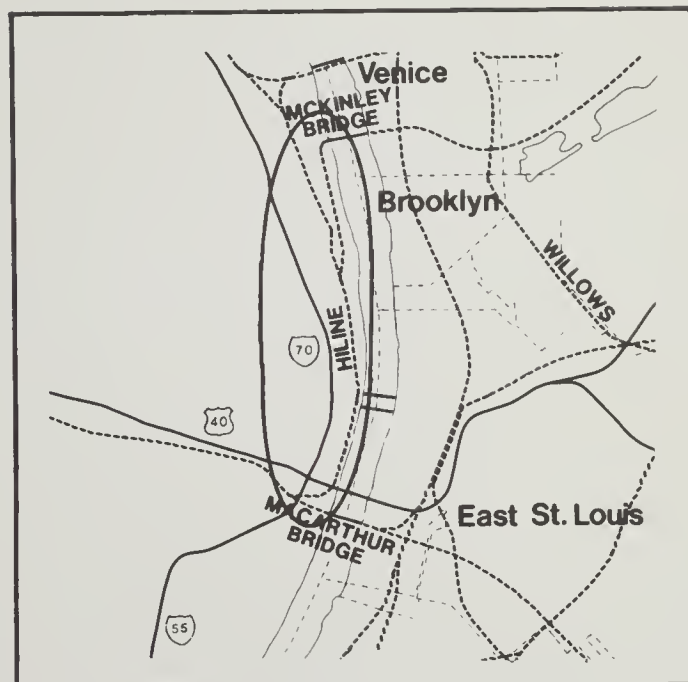


FIGURE 1 OF 2

# HILINE CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——#——     |
| MILEPOST   | ———○———   |
| SCHOOL   | □         |
| CHURCH   | ⊕         |
| ELECTRIC   | ———       |
| GAS LINE   | - - - - - |
| WATER  | ———       |
| SEWER  | ———       |
| TELEPHONE  | - - - - - |

400 200 0 400



SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

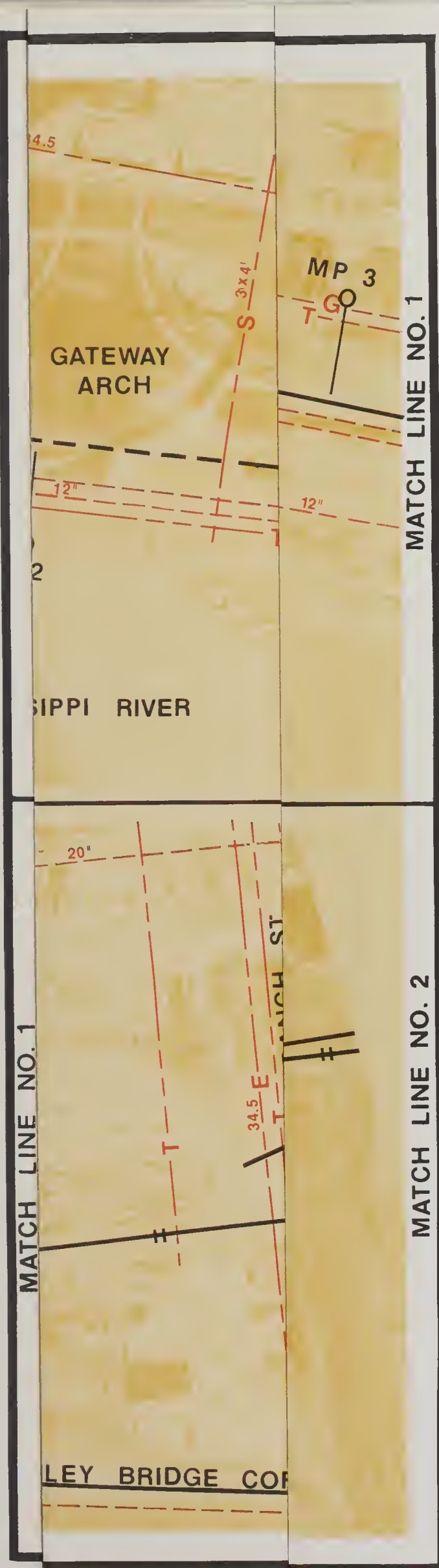






FIGURE 1 OF 2  
HILINE CORRIDOR



VICINITY MAP

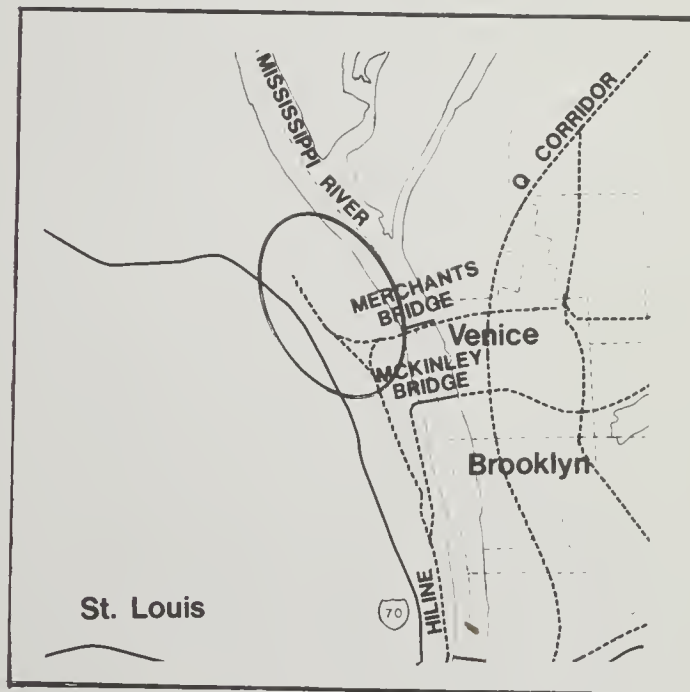
LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | - - - |
| GAS LINE   | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |



FIGURE 2 OF 2

# HILINE CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——     |
| MILEPOST   | —————○    |
| SCHOOL   | —————□    |
| CHURCH   | —————□    |
| ELECTRIC   | —————     |
| GAS LINE   | —————     |
| WATER  | —————     |
| SEWER  | —————     |
| TELEPHONE  | —————     |

400 200 0 400



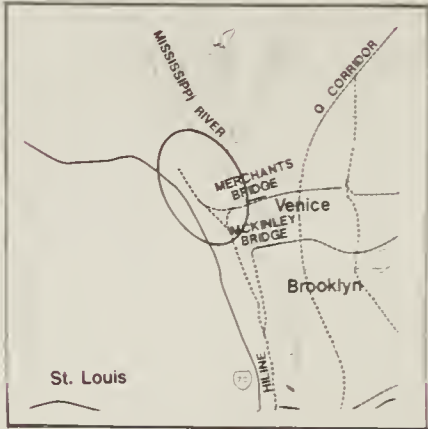
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



FIGURE 2 OF 2

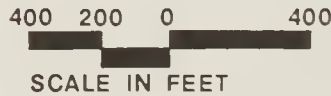
HILINE  
CORRIDOR



VICINITY MAP

LEGEND

|  |         |
|--|---------|
| EXISTING RAIL                                      | —       |
| PROPOSED RAIL                                      | - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |         |
| MILEPOST   | ○       |
| SCHOOL   | □       |
| CHURCH   | ⊞       |
| ELECTRIC   | - - - - |
| GAS LINE   | - - - - |
| WATER  | - - - - |
| SEWER  | - - - - |
| TELEPHONE  | - - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



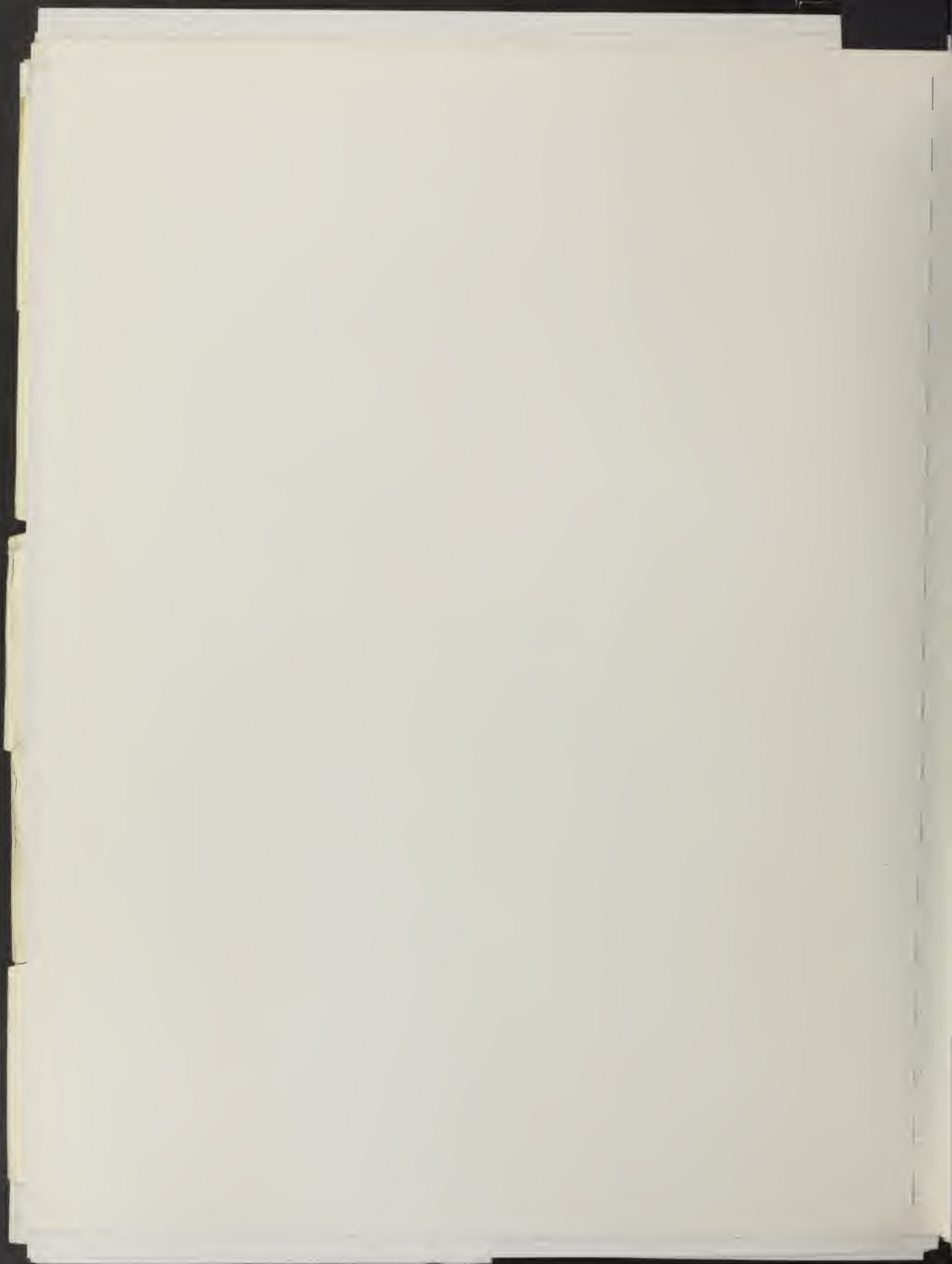
Section V

Section XI

## Section IX

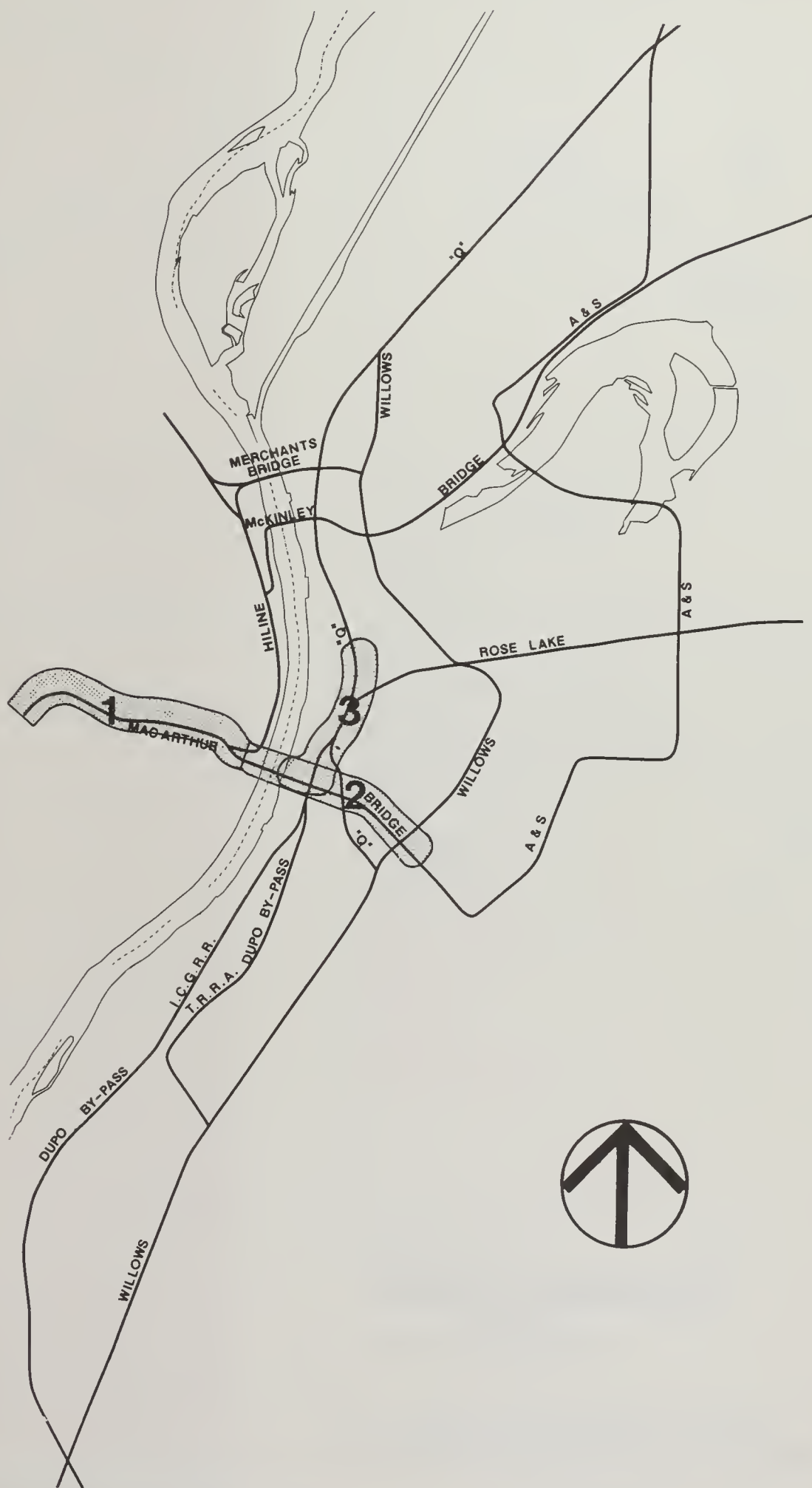
Section IX





# MAC ARTHUR BRIDGE CORRIDOR

## KEY MAP





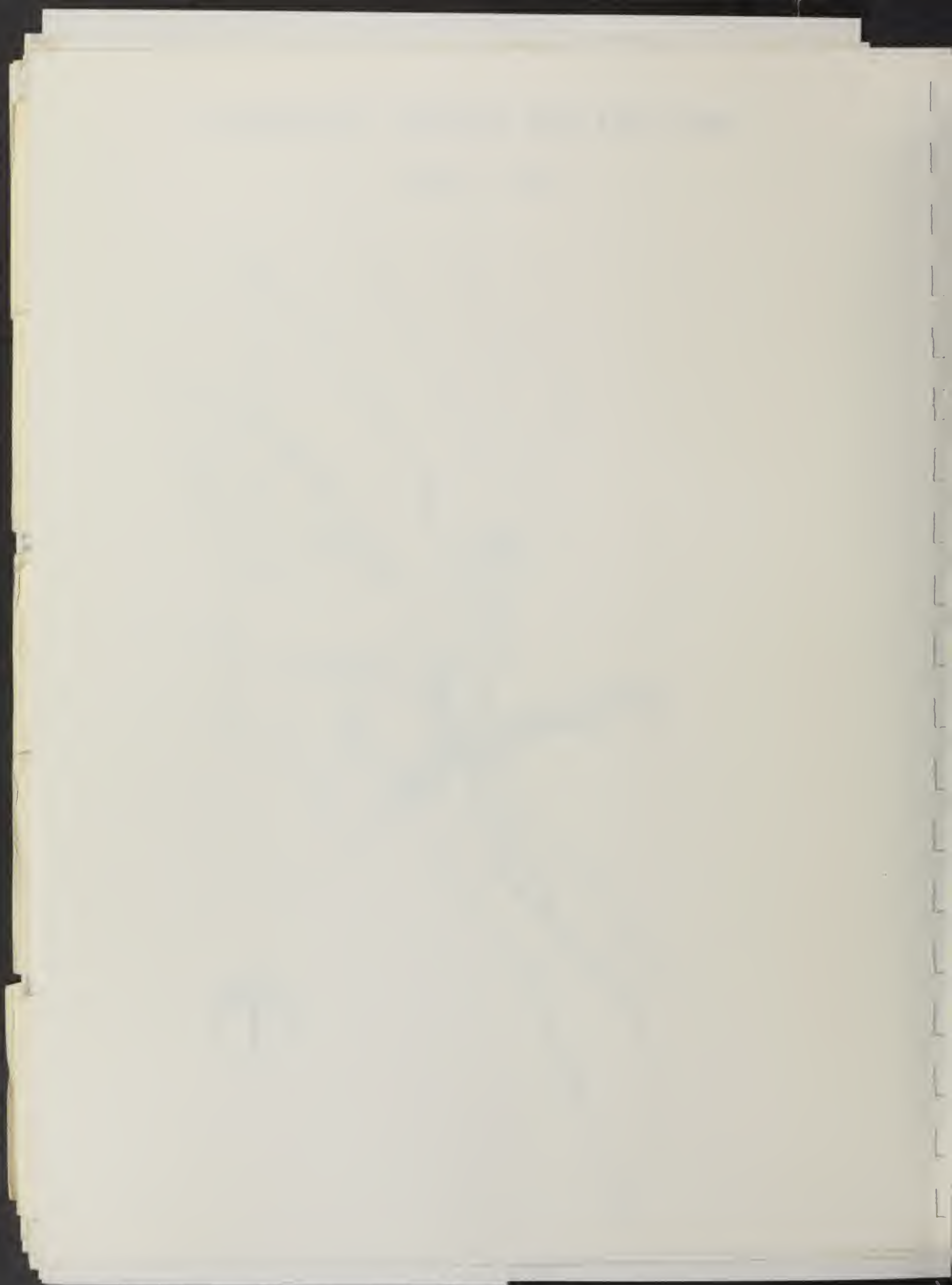
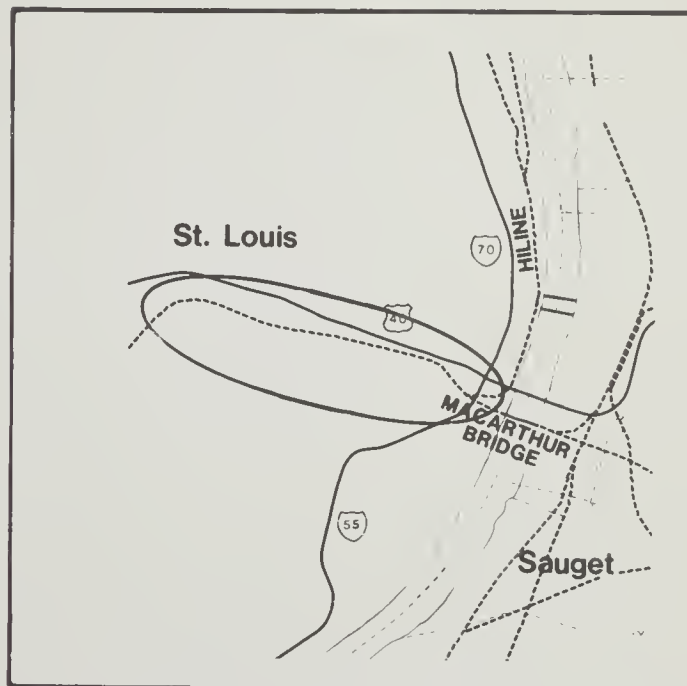


FIGURE 1 OF 3

# MAC ARTHUR BRIDGE CORRIDOR



VICINITY MAP

## LEGEND

|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

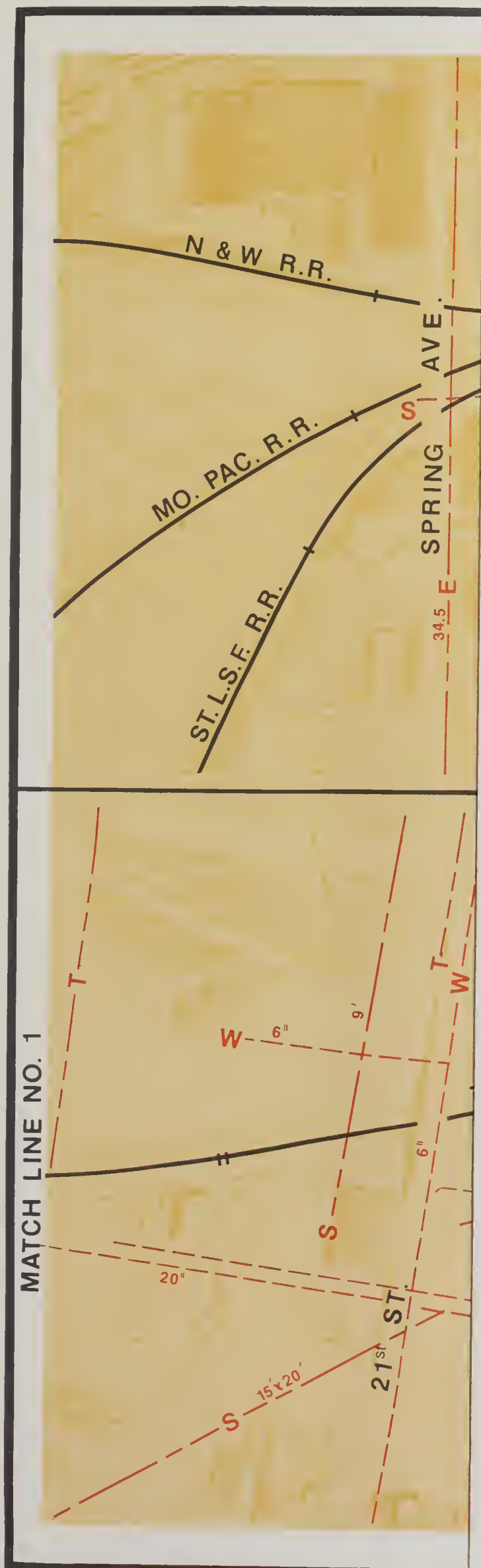
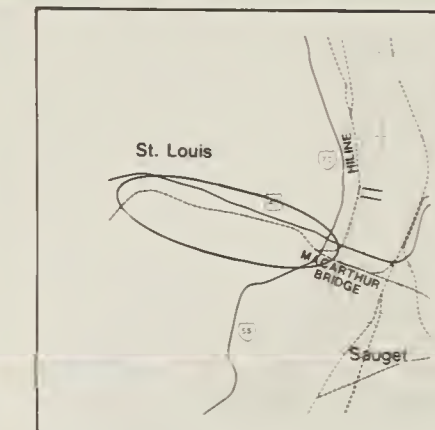




FIGURE 1 OF 3

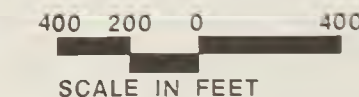
# MAC ARTHUR BRIDGE CORRIDOR



VICINITY MAP

## LEGEND

|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |

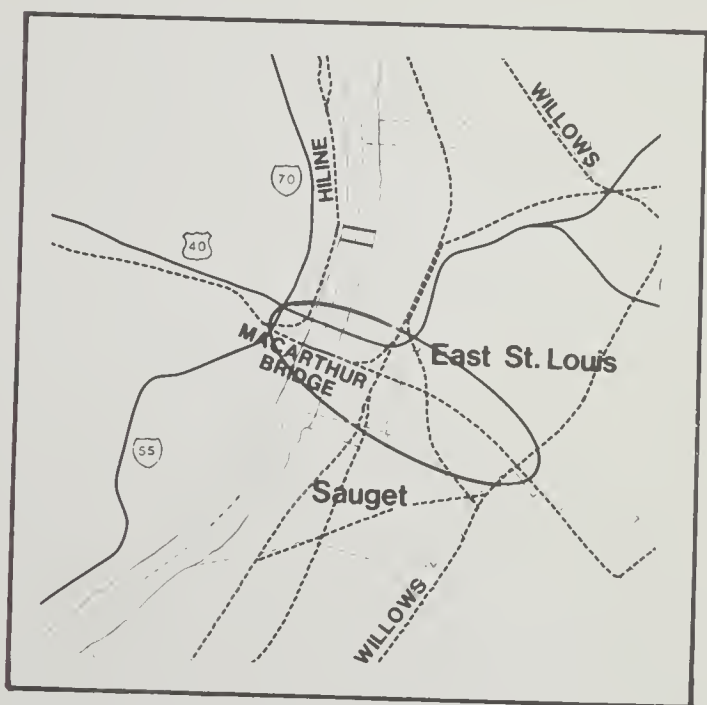


ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



FIGURE 2 OF 3

# MAC ARTHUR BRIDGE CORRIDOR



VICINITY MAP

## LEGEND

|  |           |
|--|-----------|
| EXISTING RAIL                                      | —————     |
| PROPOSED RAIL                                      | - - - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—+—     |
| MILEPOST   | —○—       |
| SCHOOL   | □         |
| CHURCH   | □+        |
| ELECTRIC   | — — — — — |
| GAS LINE   | - - - - - |
| WATER  | — — — — — |
| SEWER  | - - - - - |
| TELEPHONE  | — — — — — |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

MATCH LINE NO. 2

MATCH LINE NO. 3

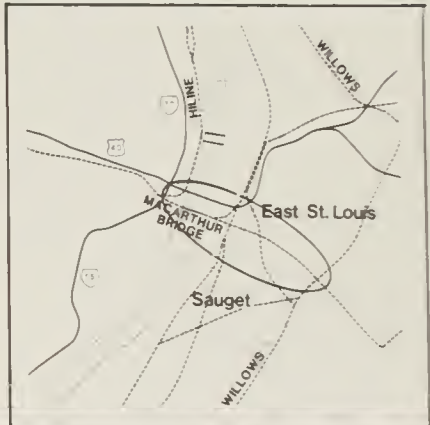
40 55

HILINE CO

16x20



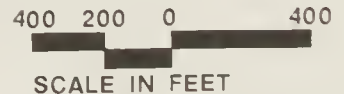
FIGURE 2 OF 3  
MAC ARTHUR BRIDGE  
CORRIDOR



VICINITY MAP

LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | — —   |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| ELECTRIC   | - - - |
| GAS LINE   | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |



ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

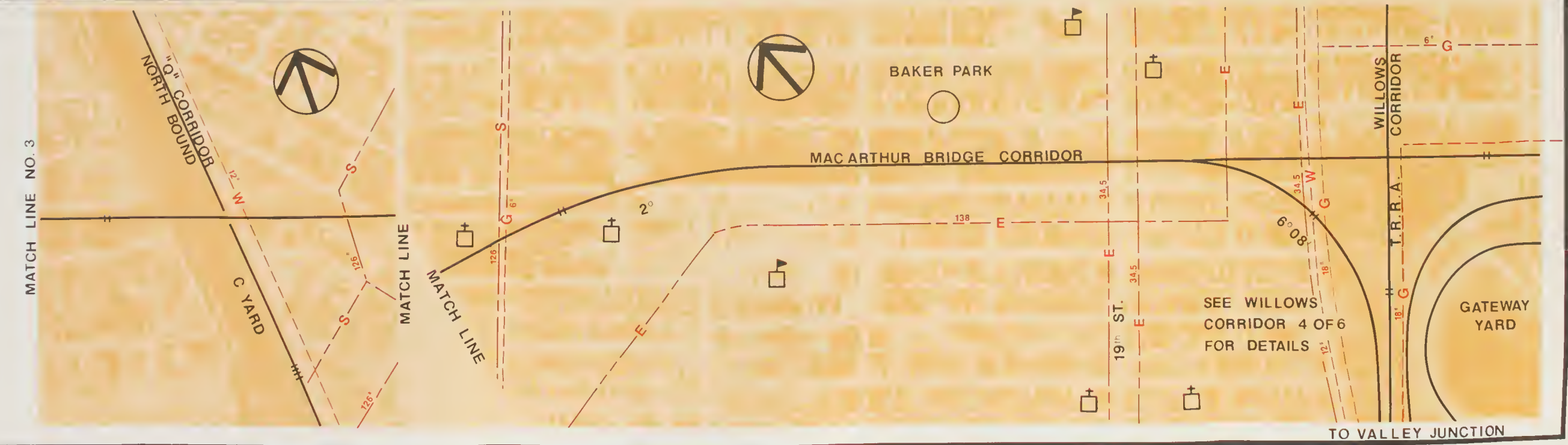
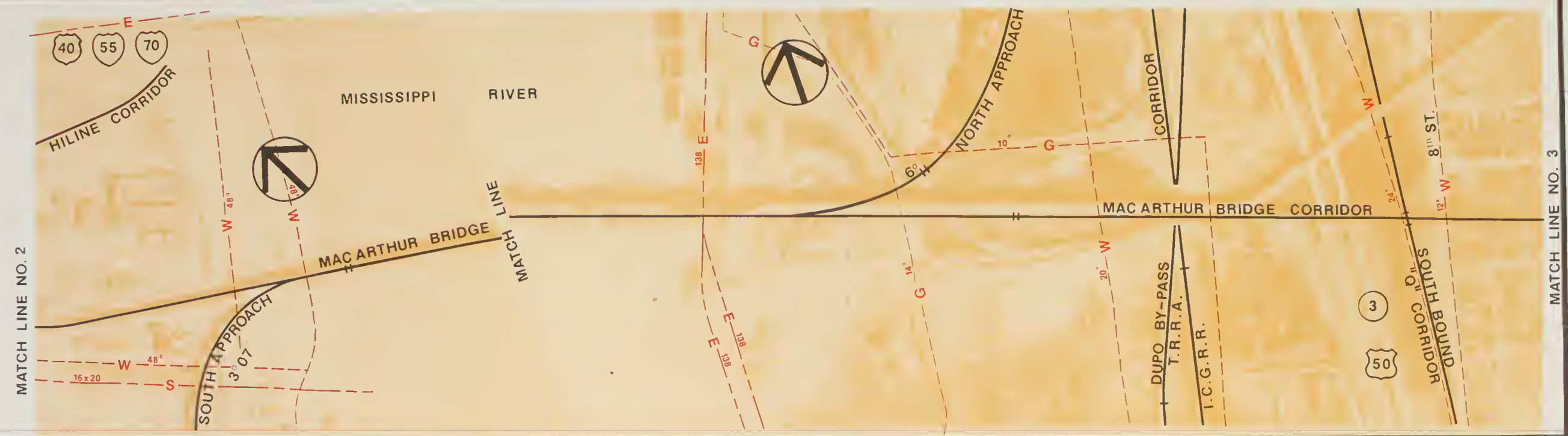
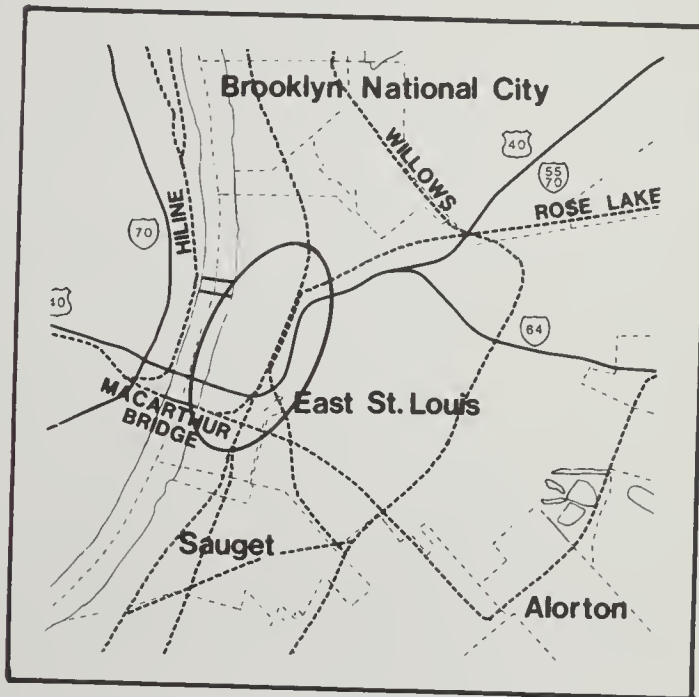




FIGURE 3 OF 3

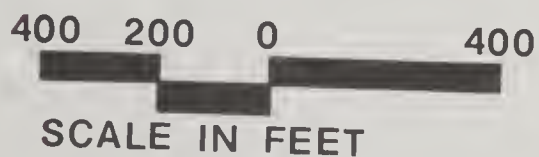
# MAC ARTHUR BRIDGE CORRIDOR NORTH APPROACH



VICINITY MAP

## LEGEND

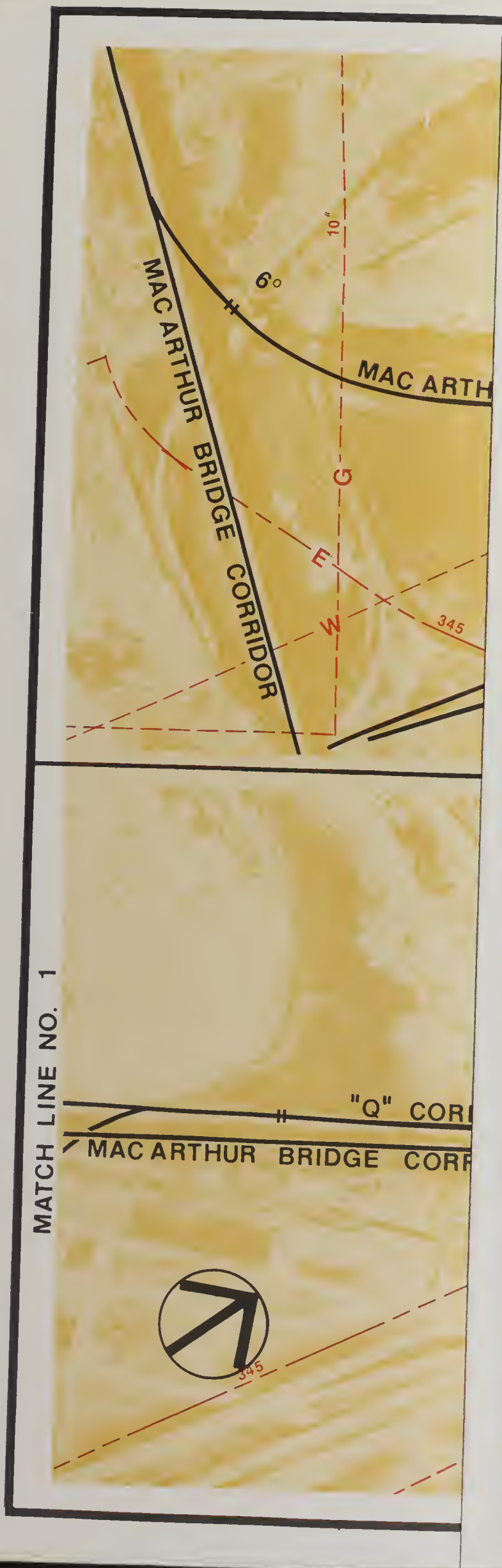
|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |



ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT

Section X

Section XI





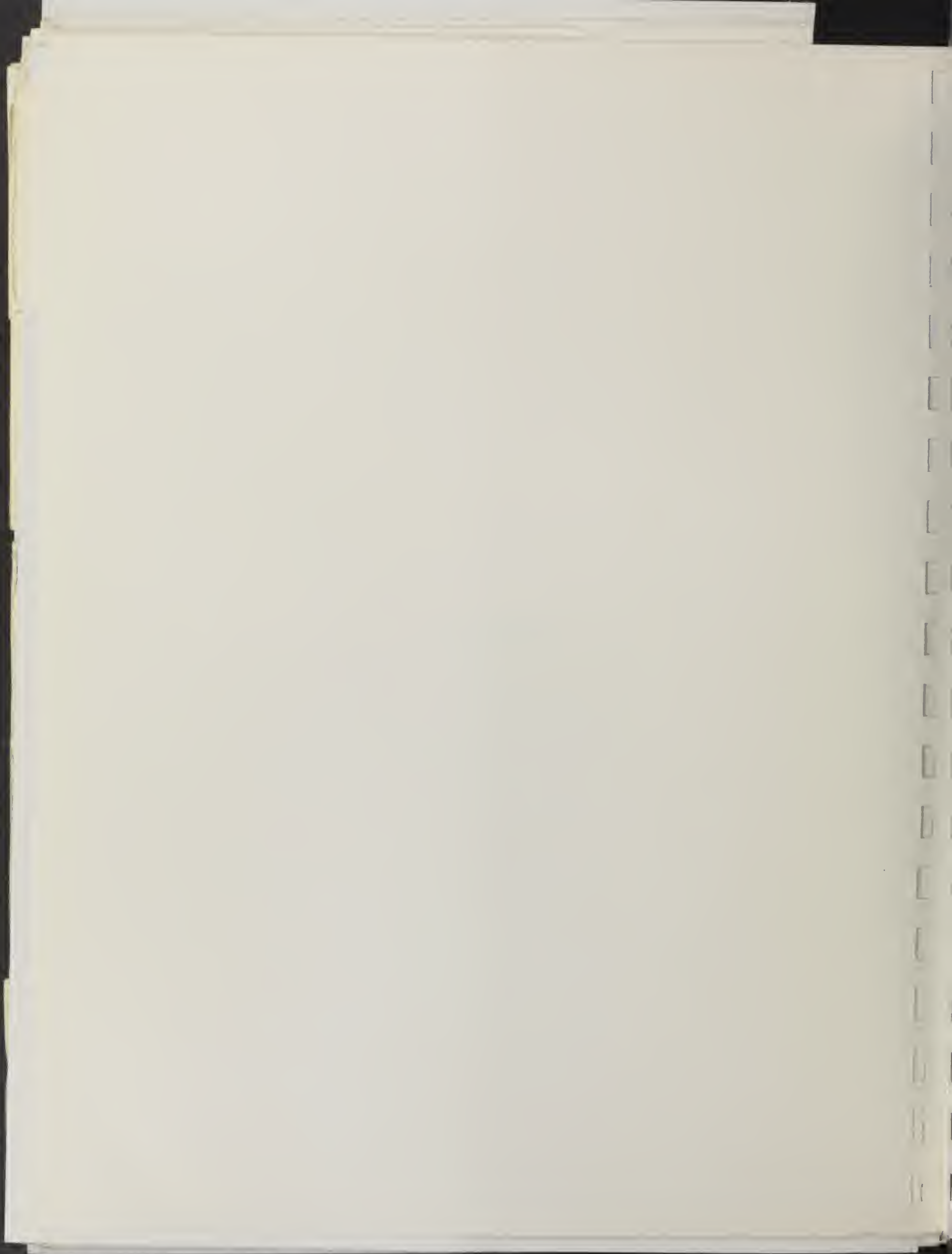


Section X

Section XI

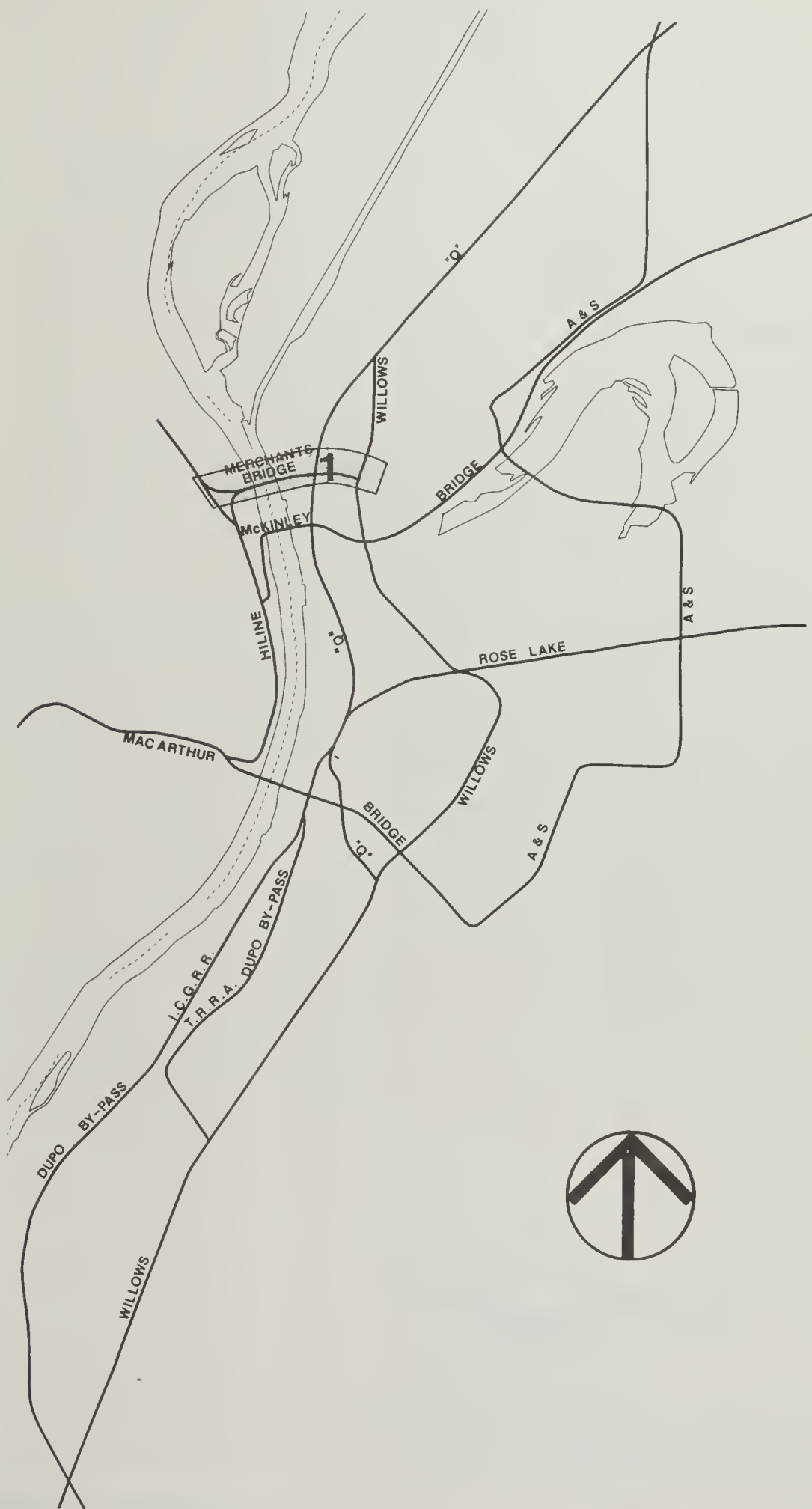
## Section X





# MERCHANTS BRIDGE CORRIDOR

## KEY MAP





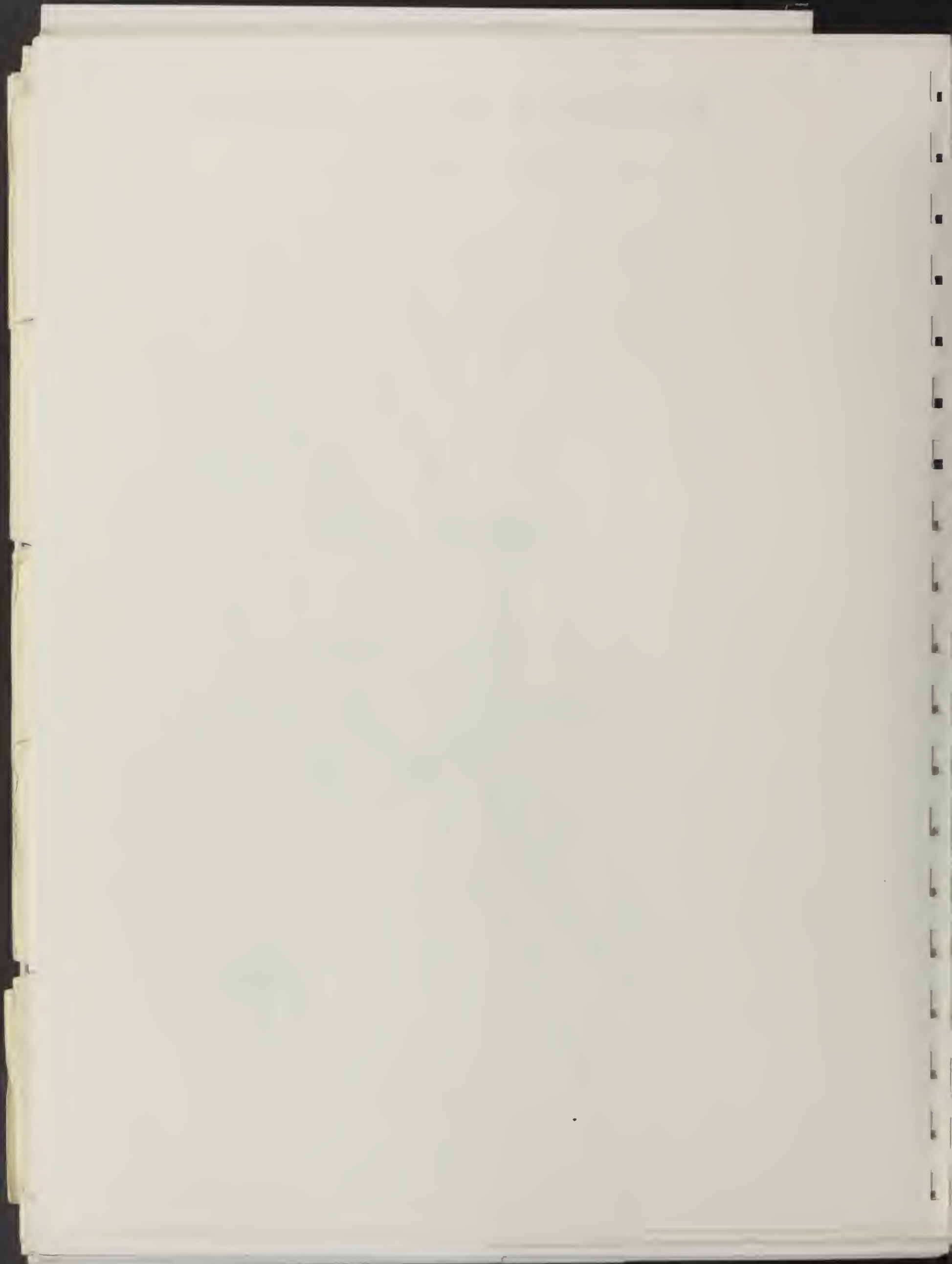
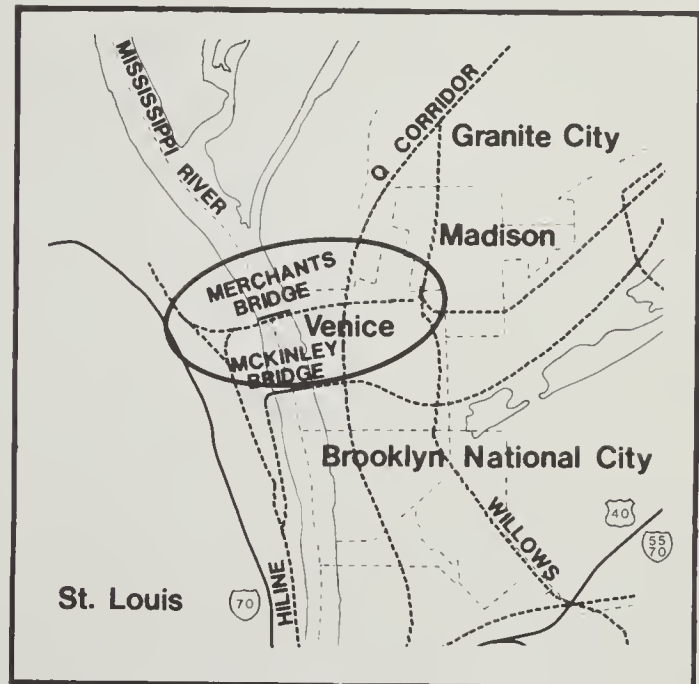


FIGURE 1 OF 1

# MERCHANTS BRIDGE CORRIDOR



VICINITY MAP

## LEGEND

|  |              |
|--|--------------|
| EXISTING RAIL                                      | —————        |
| PROPOSED RAIL                                      | - - - - -    |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | ——+——        |
| MILEPOST   | ———○———      |
| SCHOOL   | ———□———      |
| CHURCH   | ———⊕———      |
| ELECTRIC   | ———- - - - - |
| GAS LINE   | ———- - - - - |
| WATER  | ———- - - - - |
| SEWER  | ———- - - - - |
| TELEPHONE  | ———- - - - - |

400 200 0 400

SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT





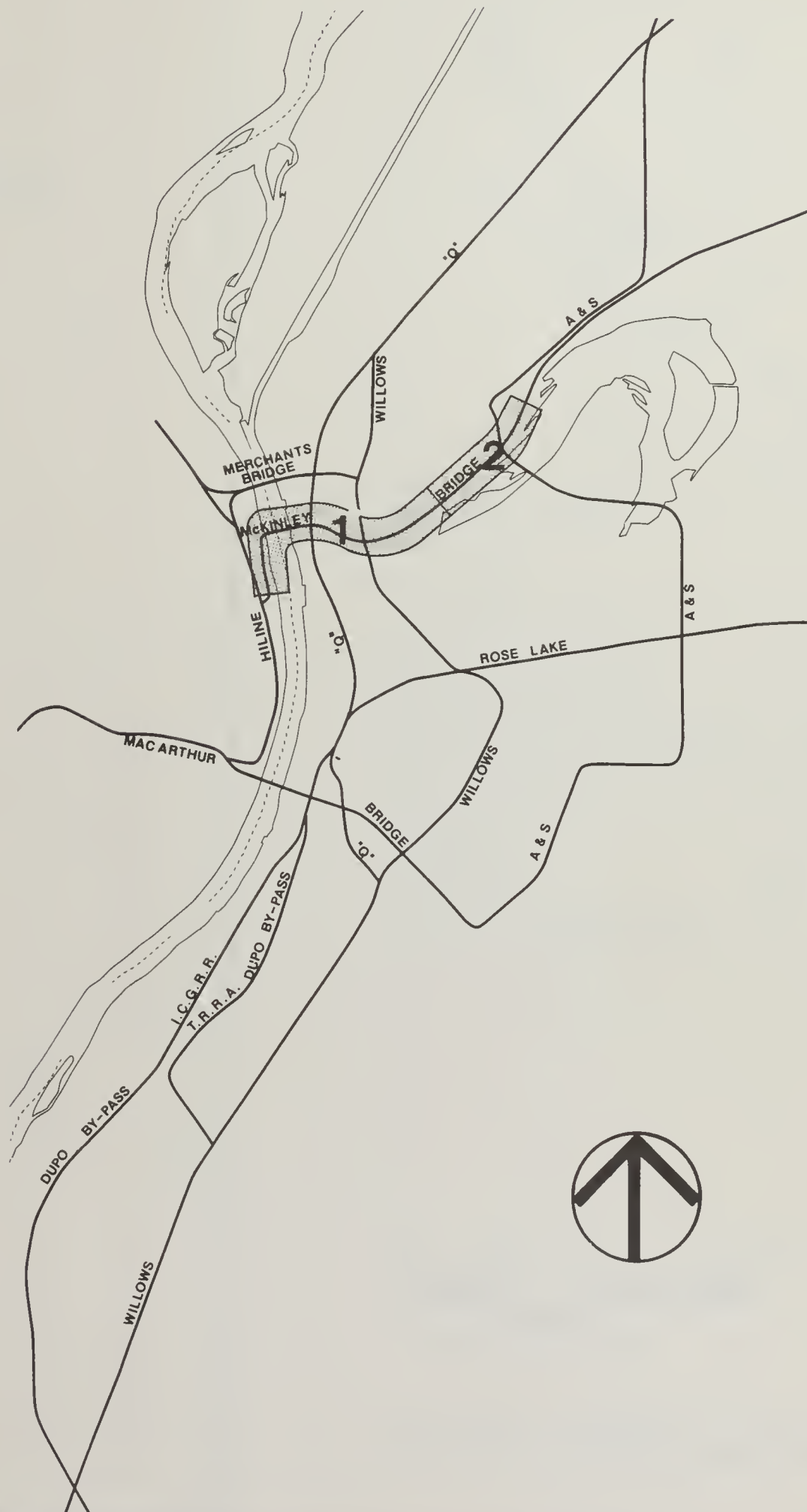
## Section XI





# MC KINLEY BRIDGE CORRIDOR

## KEY MAP





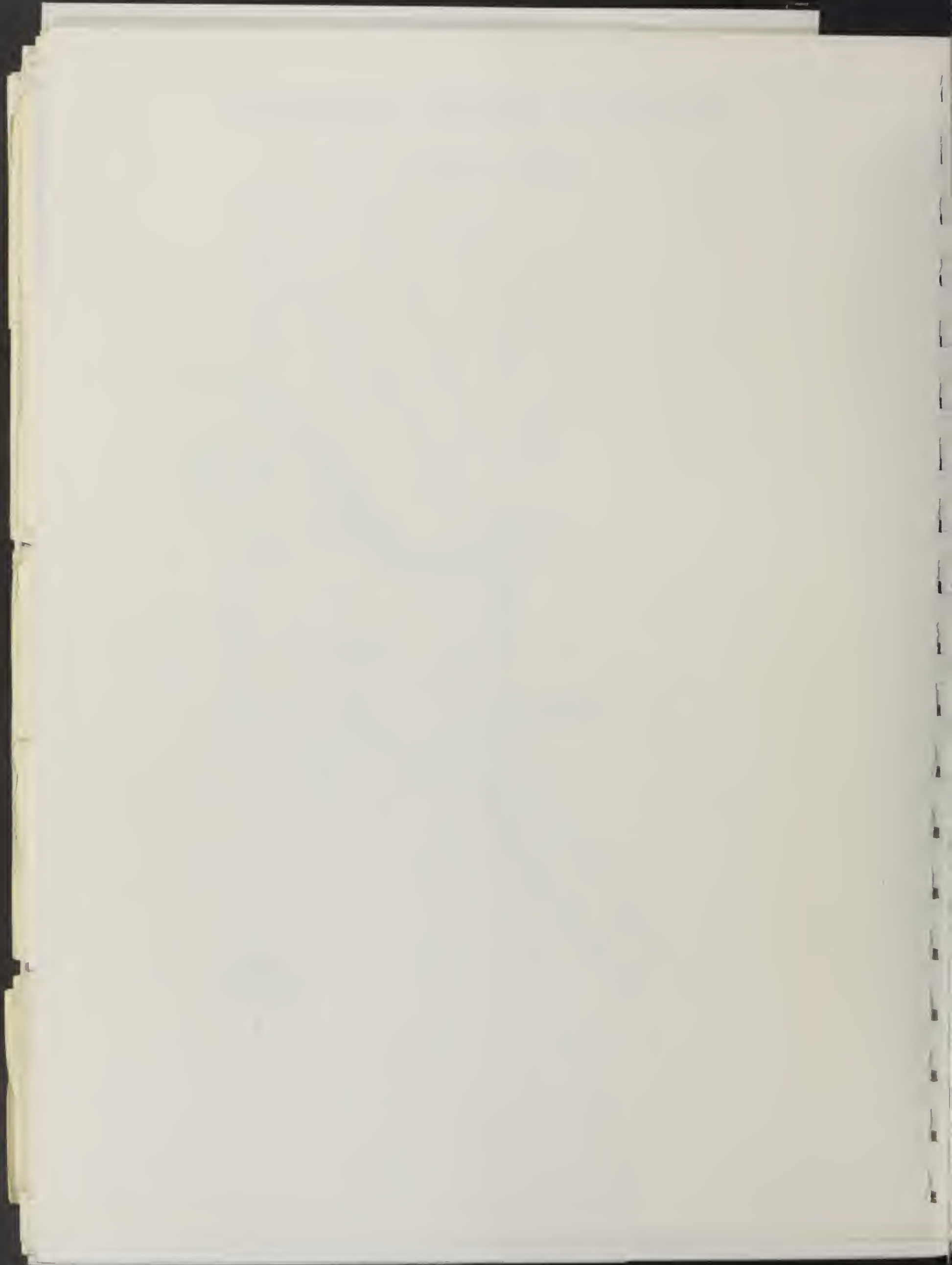
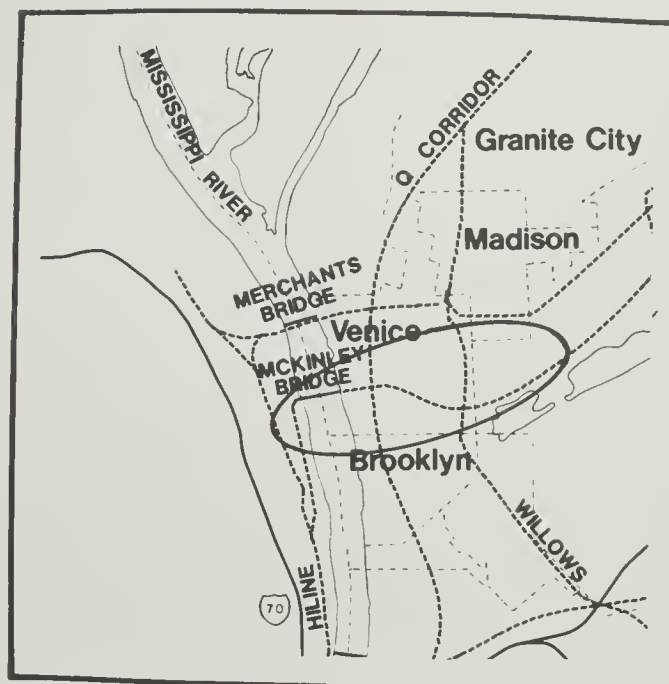


FIGURE 1 OF 2

# McKINLEY BRIDGE CORRIDOR



VICINITY MAP

## LEGEND

|  |                   |
|--|-------------------|
| EXISTING RAIL                                      | —————             |
| PROPOSED RAIL                                      | - - - - -         |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—+—             |
| MILEPOST   | —————○            |
| SCHOOL   | □                 |
| CHURCH   | □                 |
| RAIL TO BE RETIRED                                 | ~~~~~             |
| ELECTRIC   | — · — · — · — · — |
| GAS LINE   | - - - - -         |
| WATER  | - - - - -         |
| SEWER  | — · — · — · — · — |
| TELEPHONE  | — · — · — · — · — |

400 200 0 400

SCALE IN FEET

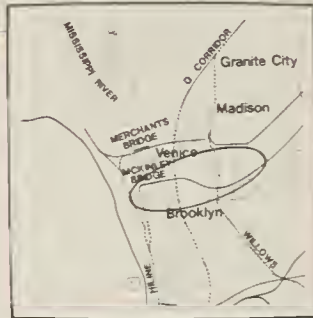
ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT





FIGURE 1 OF 2

# MCKINLEY BRIDGE CORRIDOR



VICINITY MAP

## LEGEND

|  |       |
|--|-------|
| EXISTING RAIL                                      | —     |
| PROPOSED RAIL                                      | - - - |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |       |
| MILEPOST   | ○     |
| SCHOOL   | □     |
| CHURCH   | ⊕     |
| RAIL TO BE RETIRED                                 | ~~~~~ |
| ELECTRIC   | - - - |
| GAS LINE   | - - - |
| WATER  | - - - |
| SEWER  | - - - |
| TELEPHONE  | - - - |

400 200 0 400  
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP / ENVIRODYNE / KNIGHT

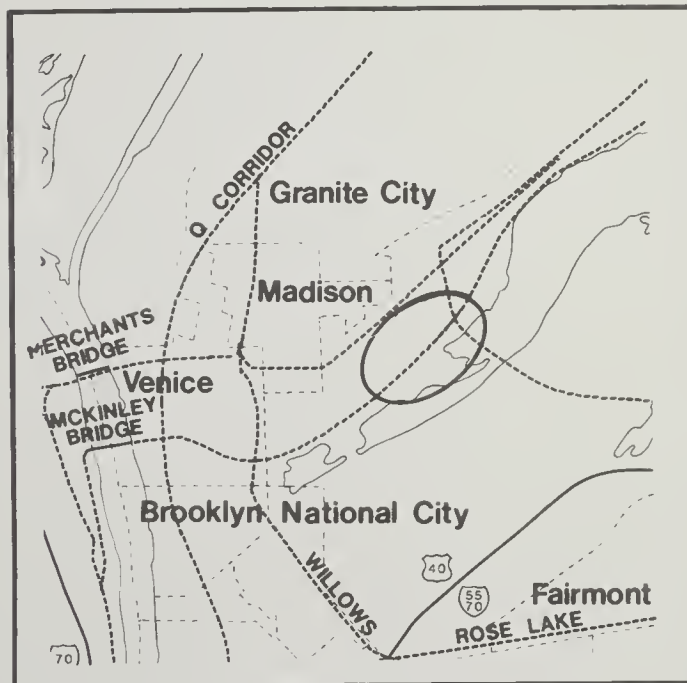


MATCH LINE NO. 2

MATCH LINE NO. 3

FIGURE 2 OF 2

## MCKINLEY BRIDGE CORRIDOR



VICINITY MAP

### LEGEND

|  |               |
|--|---------------|
| EXISTING RAIL                                      | —————         |
| PROPOSED RAIL                                      | - - - - -     |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) | —+—           |
| MILEPOST   | —○—           |
| SCHOOL   | —□—           |
| CHURCH   | —□—           |
| RAIL TO BE RETIRED                                 | ~~~~~         |
| ELECTRIC   | — · — · — · — |
| GAS LINE   | — · — · — · — |
| WATER  | — · — · — · — |
| SEWER  | — · — · — · — |
| TELEPHONE  | — · — · — · — |

400 200 0 400

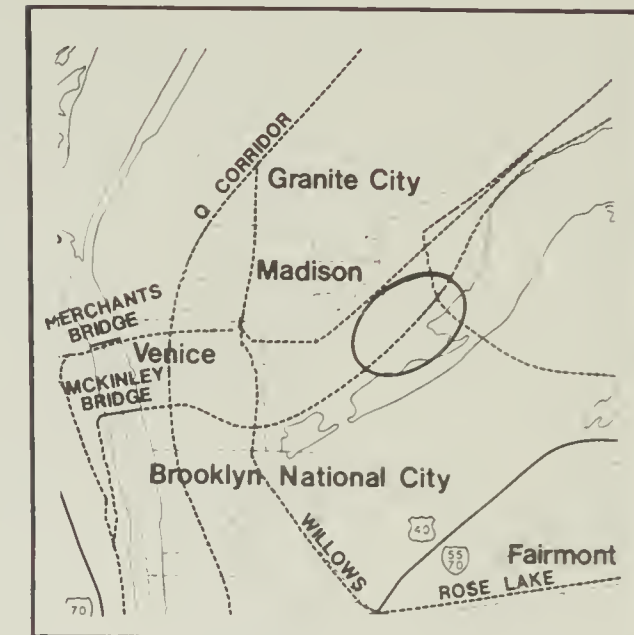
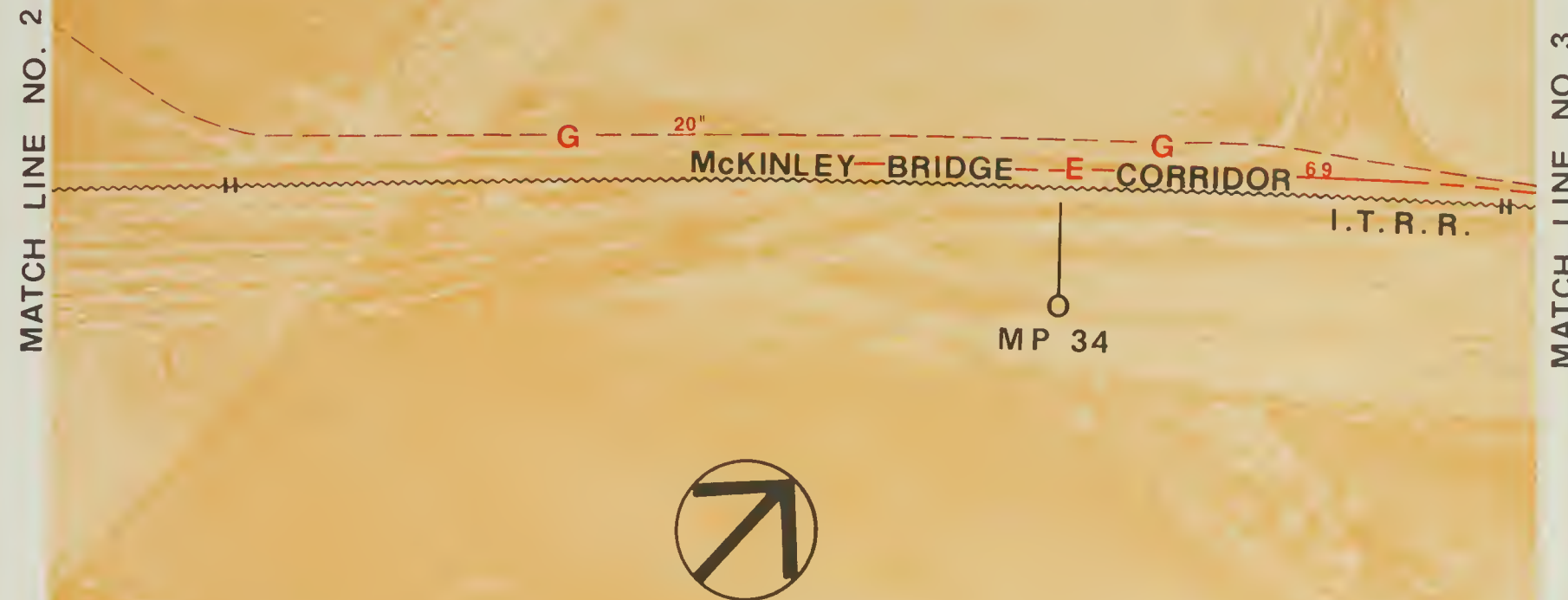
SCALE IN FEET

ST. LOUIS MARGE PROJECT  
SVERDRUP/ENVIRODYNE/KNIGHT



FIGURE 2 OF 2

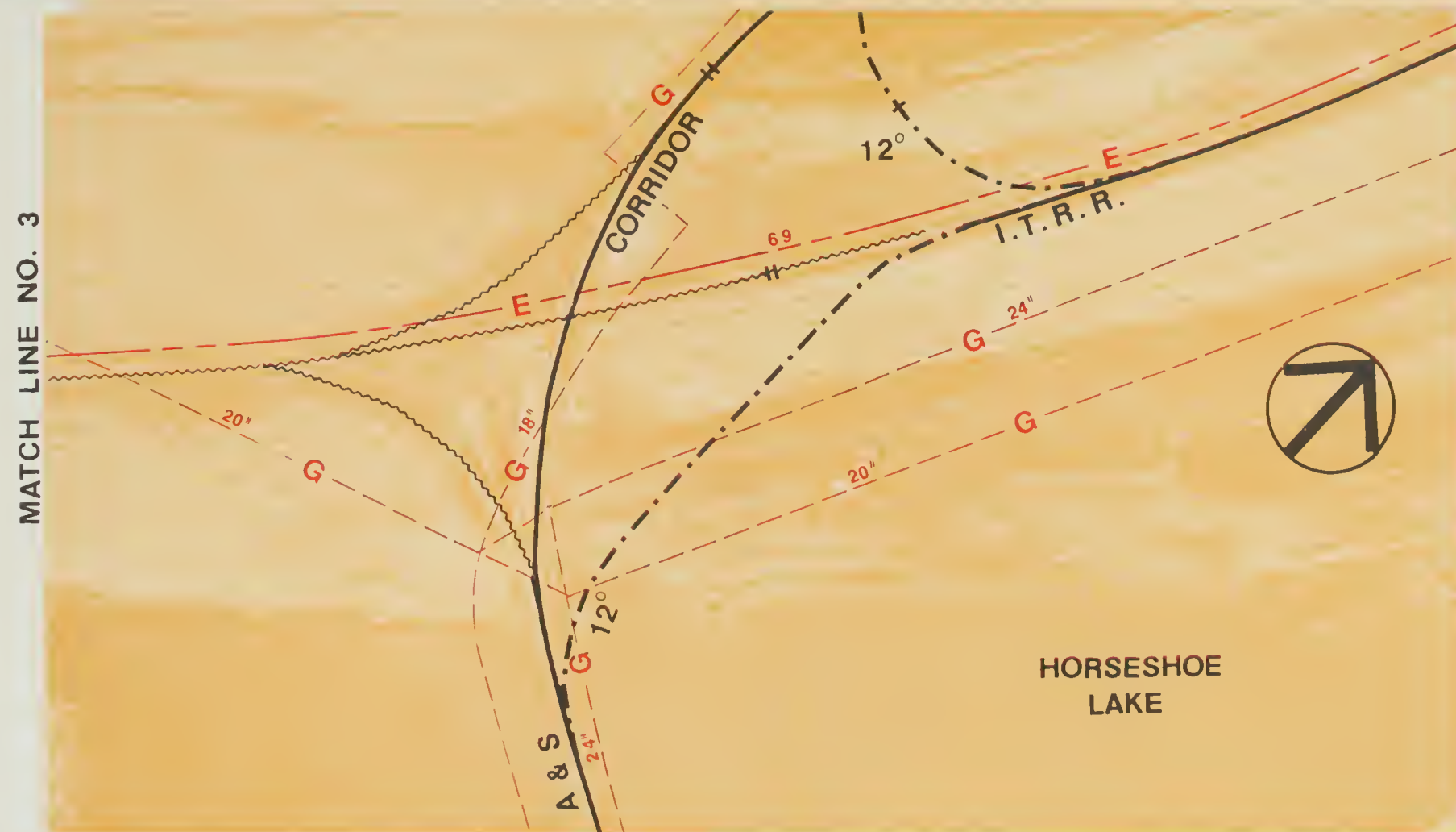
# McKINLEY BRIDGE CORRIDOR



VICINITY MAP

## LEGEND

|  |  |
|--|--|
| EXISTING RAIL                                      |  |
| PROPOSED RAIL                                      |  |
| NUMBER OF TRACKS<br>(Designated by Vertical Lines) |  |
| MILEPOST   |  |
| SCHOOL   |  |
| CHURCH   |  |
| RAIL TO BE RETIRED                                 |  |
| ELECTRIC   |  |
| GAS LINE   |  |
| WATER  |  |
| SEWER  |  |
| TELEPHONE  |  |







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